DOCUMENTS

967.32 : 330
DUR/an.

TANGANYIKA

Development Commission:

Annual Report

of the

Development Organization

1951

1952
PRINTED BY THE GOVERNMENT PRINTER,
DAR ES SALAAM
Price Shs. 2/50

CONTENTS

	Page
INTRODUCTION	
I.—GENERAL FACTORS IN ECONOMIC DEVELOPMENT:	1
1. Communications:	
(a) Roads	2
(b) Railways	4
(c) Ports and Shipping	4
(d) Air	7
(e) Posts and Telegraphs	7
2. Fuel and Power	8
3. Land	9
4. Labour	12
5. Currency and Credit	14
6. Public Finance	16
II.—PRODUCTION AND TRADE:	
1. Agriculture	18
2. Livestock	25
3. Forestry	28
4. Fisheries	29
5. Mining	30
6. Internal Trade	34
7. External Trade	35
Appendix I—Progress of individual Government Development Schemes	40
Appendix II—Statement of Expenditure under the Development Budget	57

TANGANYIKA

Development Organization Annual Report for the Year 1951

INTRODUCTION

Although a considerable amount of detailed economic information is published each year in the form of Government reports and papers, there has been no one report giving a brief but comprehensive picture of all facets of economic progress during the year. The Development Report which has been published in previous years was for the most part confined to work carried out under, and financed from, the Development Plan, and in consequence certain important sectors of the economy were not dealt with at all, or only partially. It has therefore been decided that it would be of greater value if in future the Report gave a comprehensive factual review of developments during the year irrespective of whether it formed part of the Development Plan. It is hoped that a general review of this nature will be of service in putting into proper perspective the developments in the various parts of the economy, so that a balanced judgment can be taken of progress as a whole.

2. The first chapter of the Report deals with those economic services and facilities which are of importance to production in general. In the last few years there has been a steady and considerable increase in both the quantity and value of production within the Territory, and in consequence a need for expanded and improved general economic services to move and handle the product, as well as to facilitate production itself. The adequacy of communications and transport, and the availability and cost of fuel and power, labour, land, and credit and banking facilities, etc., are some of the major general factors affecting the rate of development of the economy.

3. The second chapter reviews briefly the productive activities and trade of the Territory under the main heads.

4. A selection of such statistical information as is available and significant is given, for ease of reference, at the end of the section to which it relates. With regard to the statistical information provided it is necessary to emphasize that although measures have been taken to improve its accuracy and extend its scope, the figures given in this Report vary from good to rough estimates, and in consequence caution must be exercised in drawing conclusions from them other than those relating to general trends.

I.—GENERAL FACTORS IN ECONOMIC DEVELOPMENT

Communications

Responsibility for the development of road communications and aerodromes in the Territory rests with the Tanganyika Government while railways, ports and harbours, and telecommunication services are controlled on an East African basis.

The particular importance of communications in a relatively undeveloped territory, as a factor in increasing production needs no emphasis, and is indicated by the allocation of approximately thirty-six per cent (£8,783,000) of the total expenditure proposed under the revised Development Plan over the period 1950-56, to improving roads and aerodromes. In the last few years the East African Railways and Harbours have built a new line to the mining area of Mpanda, 131 miles in length, and are constructing a line in the Southern Province of 126 miles of which 80 miles have already been completed. This is in addition to the considerable programme of capital expenditure on the existing lines. Improvements of harbours and ports is also being undertaken and the construction of deep water berths at Dar es Salaam and Mtwara are of particular significance. Steady progress is being made with the improvement of aerodromes and facilities throughout the Territory, and telecommunication services are being expanded in response to the increasing demand which is a reflection of the growing economic development of the Territory.

Roads

In 1951 the classified roads of the Territory consisted of some 3,000 miles of main roads and approximately 14,000 miles of other roads of varying standards maintained from public funds. In addition there were some 8,000 miles of roads, often only tracks, maintained out of Native Authority funds.

2. The classified mileage, in relation to the land area of the Territory of about 342,000 square miles, works out on an average to approximately one mile of road to every twenty square miles of Territory. The standards of the roads vary considerably and only a relatively small proportion of the total can be regarded as all-weather, the remainder being liable to closure during bad weather with the consequent interruption to the movement of goods. The indifferent standard of some of the roads affects production through the higher costs of transport resulting from relatively high costs of maintenance and repairs and the greater rate of depreciation of motor vehicles.

3. It is therefore understandable that under the Revised Development Plan attention has been largely concentrated on the improvement and realignment where necessary of existing roads rather than the addition of new mileage, although new roads have also been planned.

4. The value of the Native Authority roads and tracks should not, however, be under-estimated as they play a vital part in moving much of the African produce to market and in providing the initial stimulus to production for sale. For the most part it is sound policy to provide first minor roads of this character and then to raise gradually their standard as the traffic warrants. It is with this in view that a special allocation has been made to encourage this type of construction, usually in co-operation with the Native Authorities concerned who may provide contributions in cash or labour towards the cost.

5. During 1951 considerable progress was made on the road system in the Northern Province, where a bituminized road is being constructed from Namanga on the Kenya frontier to Arusha and thence onwards to Moshi and Himo. It is expected that this road will be completed during 1953 and there will then be a stretch of 120 miles of first class bituminized road. In addition, a good start has been made on the road from Dar es Salaam to Morogoro which will be of similar standard. This work is also being undertaken by contract, supervised by the Consultants to Government, Sir Alexander Gibb and Partners (Africa). A further main link of a similar standard is being constructed between Tanga and Korogwe.

6. Another most important link is that between Morogoro and Iringa, where a direct road has been surveyed and preliminary work has already started. This road will be of high standard stabilized gravel and will be some 200 miles in length. Attention has also been given to a number of other major roads in the Territory, including the construction of sixty miles of new road from Lindi to Nanganga. This road will also be of a high standard gravel construction. A start has been made also on the construction of a realigned road from Dar es Salaam to Bagamoyo and the first section of some seven miles has been completed. A further section of five miles was nearing completion at the end of the year. General improvements have been carried out on the Great North Road and a survey has been made of all the bridges which are to be strengthened.

7. While the above are the more important projects in hand, a considerable amount of work has been undertaken throughout the Territory during 1951 to develop the road system and improve communications generally. These projects include new roads within and adjacent to the municipality of Dar es Salaam, surveys on road diversions and bridges in the Western and Lake Provinces, and several new road alignments and realignments in the Southern Province.

8. The transport of goods and passengers on the roads of Tanganyika is undertaken by private enterprises, with the one major exception of the East African Railways and Harbours who operate an extensive system of roads services radiating from Morogoro, Dodoma and Itigi on the Central Line, and from Arusha on the Tanga Line. The fleet of 191 lorries and buses operated by the East African Railways and Harbours is being completely re-equipped with diesel-engined vehicles of the latest design. In 1951 the overall tonnage of goods carried was 38,967 tons an increase of twelve per cent over the 1950 figures.

The total number of vehicles operating in Tanganyika in 1951 was approximately 18,700 as compared with 15,300 in 1950, the number of lorries and buses increasing from 6,465 to 7,306.

The figures for the Dar es Salaam Motor Transport Company, which has been operating an omnibus service within the municipality for the last two years, are of interest:—

	1950	1951
Number of buses operating in the first half of the year	17	20
Number of buses operating in the second half of the year	20	20
Mileage ... ... over	500,000	682,626
Passengers carried	3,065,500	4,927,787

Railways

In the Southern Province the line from Mkwaya to Lumesule Juu, 126 miles, is under construction and has opened to Nachingwea, eighty miles. This line will eventually connect with the port of Mtwara. The traffic prospects of the Southern Province have not yet been fully assessed, and in consequence no final decision has been taken whether an extension of the railway even further inland would be economically justified. The possibility exists, however, that in due course the line may reach beyond Songea to the. extensive coalfields, and ultimately continue to the shores of Lake Nyasa.

Economic and engineering surveys are being carried out in connection with two important rail links, namely between the Tanganyika Central Line and the Rhodesian Railways, and between the Central and Tanga Lines.

In addition to the new lines constructed and under construction, considerable capital expenditure has been incurred since the war on capital re-equipment and improvements to existing lines, and rolling stock. As regards improvements during the year, six new shunting engines (four of them diesel) and 200 units of new rolling stock have been received and put into service.

Traffic carried by the railways in Tanganyika has been maintained at a very high level and passenger traffic has increased by eleven per cent over 1950. It is estimated that two and a half million passengers have been carried during the year and it is interesting to compare this with the figure for 1939 which was 470,000.

Goods tonnages decreased slightly as compared with 1950 and the estimates for 1951 being 770,000 (1950: 794,375 tons). The estimated figure for ton miles, as a measure of the work done, increased by 9,000,000 over the previous year due to longer average haul. The net ton miles per wagon unit decreased as a result, to some extent, of the increased number of wagons in operation and to the fact that some of them are specialized wagons with restricted use.

The raising of a loan of over £30,000,000 in the near future is now under consideration, for further construction and improvements to the East African Railways and Harbours services throughout East Africa.

Ports and Shipping Services.—Dar es Salaam port can at present deal with approximately 650,000 tons of cargo annually, but its capacity is to be considerably increased. The lighterage wharf has been extended, and three deep-water berths with their attendant transit sheds, electric cranes, stacking area and railway marshalling facilities are being constructed.

The accommodation at Tanga consists of a lighterage wharf 600 feet in length. In order to deal with increasing traffic, it has been decided to construct an extension of approximately 600 feet, which will be suitable for accommodating lighters and small coastal vessels.

The Southern Province ports of Lindi and Mikindani have been developed by temporary works to handle the much increased traffic until the 1,248 feet of new deep-water berths at Mtwara are completed.

Communications on Lake Tanganyika are normally maintained by the East African Railways and Harbours twin screw steamer *Liemba*. In December, 1950 she was withdrawn from service to undergo extensive repairs and modernization, and it is anticipated she will resume her fortnightly service round the Lake in early 1953. The Steam Tug *Muanza* is at present operating a lighter service for goods and a small number of third class passengers. She will remain on the Lake to supplement the capacity of the *Liemba* when that vessel is placed back in service.

A weekly passenger and cargo service round Lake Victoria is operated by the steamships *Rusinga* and *Usoga*. The *Rusinga* was refitted and modernized in 1951 and improvements made to the passenger accommodation of the *Usoga*.

As compared with 1950 the tonnage of goods handled at Dar es Salaam port increased by over fourteen per cent while there was a slight decrease at Tanga and the Southern ports although with regard to the latter there was a forty-five per cent increase in the tonnage of exports.

NUMBER OF PASSENGER JOURNEYS ON CENTRAL AND TANGA LINES

(Including Tanganyika Road Services and Lake Tanganyika Services)

		1st Class	2nd Class	3rd Class	Totals
1948:	Central Line	32,764	34,984	1,226,043	1,293,791
	Tanga Line...	3,081	35,027	867,256	905,364
	Total ...	35,845	70,011	2,093,299	2,199,155
1949:	Central Line	33,987	41,351	1,362,931	1,438,269
	Tanga Line...	3,290	40,511	1,001,909	1,045,710
	Total ...	37,277	81,862	2,364,840	2,483,979
1950:	Central Line	31,417	42,890	1,162,698	1,237,005
	Tanga Line...	2,331	36,738	984,046	1,023,115
	Total ...	33,748	79,628	2,146,744	2,260,120
1951:	Central Line	31,192	52,322	1,251,095	1,334,609
	Tanga Line...	2,420	41,561	1,158,709	1,202,690
	Total ...	33,612	93,883	2,409,804	2,537,299

WEIGHT OF GOODS CARRIED

Year	Central Line		Tanga Line		Totals	
	Tons	Index 1948=100	Tons	Index 1948=100	Tons	Index 1948=100
1948	382,344	100	160,148	100	542,492	100
1949	434,621	114	170,092	106	604,713	111
1950	601,837	157	192,810	120	794,647	146
1951	585,569	153	189,887	119	775,456	143

TON MILEAGE OF TRAFFIC

Year	Central Line		Tanga Line		Totals	
	Ton Mileage	Index 1948=100	Ton Mileage	Index 1948=100	Ton Mileage	Index 1948=100
1948	128,507,334	100	17,033,444	100	145,540,778	100
1949	146,188,903	114	17,222,869	101	163,411,772	112
1950	177,187,392	137	21,659,964	127	198,847,356	137
1951	186,335,426	145	*	—	*	—

*Not available.

NET TON MILES PER (12 TON) WAGON UNIT

Year	Central Line		Tanga Line		Totals	
	Ton Miles	Index 1948=100	Ton Miles	Index 1948=100	Ton Miles	Index 1948=100
1948	110,399	100	67,326	100	177,725	100
1949	119,123	108	75,872	113	194,995	110
1950	140,032	127	91,768	136	231,800	130
1951	125,109	113	*	—	*	—

*Not available.

TONNAGE OF GOODS HANDLED

Year	D'Salaam	Tanga	Southern Posts (Lindi, Mtwara, Mikindani)	Total
1948: Imports	33,000	70,000	89,000	192,000
Exports	171,000	136,000	45,000	352,000
Total ...	504,000	206,000	134,000	544,000
1949: Imports	395,000	81,000	116,000	592,000
Exports	192,000	142,000	41,000	375,000
Total ...	587,000	223,000	157,000	967,000
1950: Imports	396,000	106,000	84,000	586,000
Exports	169,000	141,000	37,000	347,000
Total ...	565,000	247,000	121,000	933,000
1951: Imports	425,000	97,000	56,000	582,000
Exports	218,000	138,000	54,000	410,000
Total ...	643,000	235,000	110,000	992,000

Air

Internal schedule air transport is conducted by the East African Airways Corporation which operates a net-work of scheduled services connecting the main administrative and commercial centres of Tanganyika, Kenya, Uganda, and Zanzibar. Small charter aircraft are based at Dar es Salaam Mbeya and Bukoba.

There are twenty-one scheduled aerodromes in the Territory of which two—Dar es Salaam, Tabora are capable of taking large aircraft in all weathers. The other nineteen are capable of taking light-medium aircraft. There are a number of minor airfields suitable for smaller aircraft but many of these become unserviceable in wet weather. The Government plans to bring the majority of the airfields used by scheduled air services up to approximately international "F" standard, and a number of improvements have been carried out during the year. A new airport designed to international standard "C" on which construction started early in 1951, is being built just outside Dar es Salaam and will be capable of taking jet-propelled aircraft. More detailed information concerning the improvements made to aerodromes during the year will be found in Appendix I.

Figures are not available regarding the operation of the East African Airways Corporation for Tanganyika alone, but the figures relating to their services in East Africa as a whole indicate the very considerable expansion in air traffic that has taken place over the last few years.

	1948	1949	1950	1951
Aircraft Mileage	1,656,986	1,857,725	2,574,336	2,592,309
Load Ton Miles carried	508,026	844,580	1,338,149	1,885,707
Passengers carried	22,898	36,132	48,699	63,594
Cargo (in Kilos)	209,898	381,081	715,193	937,309
Mail (in Kilos)	59,013	76,147	101,942	274,680
Gross Revenue	£295,178	£473,144	£664,450	855,259

Posts and Telegraphs

Posts.—There are thirty-eight post offices in the Territory at which all types of postal business is transacted and postal facilities are available at 149 other centres, one new centre having been opened in 1951. Four travelling post offices transact business at small stations on the main railway routes.

The delivery of correspondence is effected through the medium of the poste restante, private boxes or private bags. During the year 1,174 new private boxes were installed bringing the total to 5,280. The transmission of correspondence to a number of places has been accelerated by the making of new mail-carrying contracts and the provision of more departmental motor vehicles. Full use is made of both internal and external air services for the carriage of mail.

Telephones.—The telephone system comprises a net-work of forty-seven exchanges (five of which are automatic) connected with the main trunk routes. A further nine exchanges afford telephonic communication with restricted areas. Forty-seven call offices are in operation and the number of subscribers' telephones connected to the system is now 5,680. The radio telephone service is now available to most of the Commonwealth and European countries and the United States of America.

During the year three additional trunk exchanges have been connected; the wire mileage of telegraph and telephone trunk routes was extended by 150 miles. Twenty new speech and six new telegraph channels were connected. The number of subscribers' telephones connected increased by 610 and subscribers' extensions by 670.

Telegraph and Cable.—The telegraph service extends throughout the Territory and telegraph and telephone routes, most of which are overhead, cover 9,675 wire miles. Telegrams are now accepted and delivered at 182 stations, and teleprinters are in operation on five channels. Overseas cables are handled by Cable and Wireless Limited.

Radio Services.—There are twenty-two post office radio stations, one new station having been opened during the year. Eleven stations are equipped as aeradio stations and give assistance to aircraft.

During 1951 two-way ship to shore radio-telegraph communication was continued from the Dar es Salaam post office radio station. Commercial and other traffic is passed over regular schedules with vessels at sea and workable ranges have proved highly satisfactory.

Wireless receiving licences are granted free and 1,495 were issued during the year. An experimental short-wave broadcasting service was established at Dar es Salaam. The results have been very successful and it is planned to extend and improve the service.

Fuel and Power

Internal resources of fuel and power are at the moment confined to firewood and relatively limited supplies of electricity. Considerable deposits of coal have been located in the Southern Province and are being actively investigated as described in the section dealing with minerals. Decisions regarding their exploitation will of course, depend on a number of factors including in particular the availability of markets and adequate transport to get the coal to market at an economic price. At present a certain amount of coal is imported from South Africa mainly for the Railways Administration.

The amount of firewood cut rose again, from thirteen million solid cubic feet in 1950 to sixteen million solid cubic feet in 1951. There are of course strict limits to the amount of firewood that can be cut each year if the resources of the Territory are not to be depleted, with the consequent effect on soil fertility and erosion. The position is discussed in the section dealing with forestry.

The production of electricity increased considerably as compared with 1950 and details are given in the following paragraphs.

Electricity

Public Supplies.—Electricity consumption continued to increase throughout the year. The Tanganyika Electric Supply Co. Ltd. recorded an increase of forty per cent in units sold, and the Dar es Salaam and District Electric Supply Co. Ltd. showed an increase of thirty-eight per cent over the previous year.

1. *Dar es Salaam and District Electric Supply Co. Ltd.*—A new supply came into operation at Morogoro, and progress was made towards the completion of the hydro-generating stations at Mbeya and Iringa where pilot diesel generation is at present in operation. Considerable progress was made in reconstructing the existing systems of supply at Tabora, Kigoma and Mwanza, and it is expected that the work will be completed in 1952. The Company also accepted a Licence to supply the new port of Mtwara in the Southern Province.

2. *Tanganyika Electric Supply Company Limited.*—The installation of an additional 5,000 Kw. hydro set at the Grand Pangani Falls Power Station was commenced and is expected to be completed during 1952. A twenty-four-hour supply to Mombasa was commenced in February, 1951, but the amount of power exported was still subject to restrictions although it is anticipated that an unrestricted supply, within the terms of the Authorization, will be possible when the new 5,000 Kw. set goes into commission.

Private Supplies.—Apart from about thirty comparatively small private generating plants supplying power for sisal decorticators, groundnut production, and small mining activities, there are four main mining power stations located at New Saza (gold mining), Geita two (gold mining), Mpanda (lead mining), and Mwadui (diamonds). No figures are available regarding the production of electricity from private plants.

Future Development.—Preliminary surveys of other hydro sites on the Pangani River in the neighbourhood of the Grand Pangani Falls indicate that a power potential of approximately 30,000 Kw. can be developed. This power will be developed in progressive stages to meet increasing demands from the sisal industry, from new industrial undertakings, and to increase the export to Mombasa.

The development of coal resources in the Southern Province would entail a considerable demand for power in that area; and further developments in lead mining in the Mpanda District may justify the development of a hydro site on the Malagarasi River—alternatively a large increase in diesel generation in this district seems certain.

In addition Government has set aside £120,000 in the Revised Development Plan for the supply of electricity to towns and outstations in the Territory over the period 1950-56. Detailed surveys have been made in connection with proposals to instal public supplies in Bukoba, Mpwapwa, and Kilosa.

Land

During the year under review satisfactory progress was made in the fuller utilization of the land resources of the territory. The figures of acres alienated in the various provinces given in the schedule at the end of this section reflect the progress made. Of the total area of 239,935 acres alienated during the year for agricultural or pastoral purposes, 234,644 acres was granted under 136 long-term Rights of Occupancy and the balance of 5,291 acres was granted under eleven short-term Rights of Occupancy. In comparing the total acres alienated in 1950 and in 1951 it should be noted that the 1950 figures include 24,650 acres of ex-enemy farms re-alienated, 44,164 acres for the Colonial Development Corporation Wattle Project at Njombe and 151,417 acres for lands held by the Overseas Food Corporation at Kongwa and that the 1951 figures include 126,369 acres of ex-enemy sisal estates re-alienated but

exclude an area of 64,000 acres for grazing purposes in Tanga Province, since, although this land was allocated in 1951, the offer was only signed on 1st January, 1952. If the figures in the schedule are adjusted to include the grazing land at Tanga and exclude the other areas referred to above, the totals for 1950 and 1951 would be 155,365 and 177,566 acres respectively and would give a truer comparison between the two years.

In the Northern Province some 12,751 acres were disposed of to twenty-four applicants, these allocations including six of the eight new farms on the north slopes of Kilimanjaro, which attracted great interest both in East Africa and in the United Kingdom. The Sanya Corridor had been rented by the small number of Africans on it by the end of the year under the terms of the Wilson Report and will be advertised in 1952 as a number of ranching and dairying units and extensions to existing units, amounting in all to some 130,000 acres. Further examination was made during the year of the Essimingor area, which had been advertised in 1950 as three large ranching blocks of 100,000 acres each and had attracted no applicants. It is now proposed by the Northern Province Land Utilization Committee to divide one of the blocks into smaller mixed farming units but it is probable that the other two blocks will be disposed of as ranching land approximately as originally proposed.

In the Southern Highlands Province 13,378 acres was allocated during the year to twenty-one applicants and a large number of land utilization schemes were planned by the Land Utilization Committee; some of these projects should be launched in 1952. In the Eastern Province 26,779 acres of new land was alienated, of which 10,000 acres was allocated in farms of 1,000 acres each in the Msowero area.

In the Southern Province four 500-acre tobacco farms were allocated and a number of other projects were under examination. It is hoped to appoint a Land Utilization Committee for Southern Province in 1952; committees are already in operation in the Northern, Eastern and Southern Highlands Provinces.

In Tanga Province a number of ex-enemy properties, including a sisal estate of 23,469 acres, were re-alienated. The most important allocation was of 64,000 acres for grazing purposes. There were no important new alienations in the Western, Lake and Central Provinces.

There was an increased demand for land in most urban centres both for commercial and residential purposes, the number of Rights of Occupancy granted being 997 as compared to 920 in 1950. Fourteen new building centres were established during the year. Over 140 plots have been made available in the Changombe area of Dar es Salaam for medium density residential use but the demand is still very high. Plots for this purpose should become available during 1952 in the Upanga area under the Upanga Development Scheme. Arrangements for the supply of a very large number of plots for high density residential use in the Magomeni area were in train and should be completed in 1952; these plots will supplement those provided and already largely occupied in the Kinondoni area.

Demand was also high for plots for other purposes, such as school sites, mission sites, factories, godowns, labour lines, etc., and in the total number of Rights of Occupancy granted for such purposes was 304 as compared to 253 in 1950.

Province	1948	1949	1950	1951
Lake	—	—	1,865	4,500
Central	1,503	2,580	125,855	2,690
Southern	1,968	6,930	182	21,524
Western	1,583	61	1,990	2,440
Northern	23,802	47,213	54,998	19,550
Eastern	7,413	33,355	46,061	83,281
Southern Highlands	31,740	106,180	113,643	13,379
Tanga	4,101	13,534	4,002	92,571
Totals ...	72,110	209,853	*375,596	†239,935

*This total includes:—

	Acres
Re-alienated ex-enemy farms	24,650
C.D.C. Wattle project	44,164
Overseas Food Corporation	151,417
	220,231

†This total includes:—

Re-alienated ex-enemy sisal estates—126,369 acres—but excludes 64,000 acres of grazing allocated in 1951 but formally accepted on the 1st January, 1952.

Labour

The rapid economic development of the Territory has necessitated urgent attention being given to the proper organization and full utilization of manpower resources. During the year the position was surveyed and a factual report entitled "A Preliminary Investigation of the Manpower Position 1951" was published. The findings of the report was considered by a special committee, and its recommendations are under consideration by Government.

Supply.—The labour enumeration undertaken in 1951 showed the number of Africans in paid employment was nearly 19,000 less than in 1949 when owing to poor harvests and shortage of food abnormal numbers were in search of work. The number of casual workers, however, more than doubled but the regular workers decreased by some 58,000. It will be noted that the enumerations were not made on the same month of the year but it is not thought that the results were materially affected by this difference.

In most areas there was sharp competition for labour. It was noticeable that the sisal industry, which substantially increased its wage rates on the 1st April, was hardly affected despite the fact that the numbers coming from one of the main sources of supply, the Lake Province, were considerably below the normal. In this province difficulty was experienced by all local employers including Government departments and the East African Railways and Harbours Administration, in securing adequate labour for their normal services and requirements. The local population, with good crops for which they were able to obtain high prices, a flourishing "hedge" sisal industry and a good market for their cattle, had no need to engage in paid employment to supplement their means of livelihood. In other provinces, particularly the Northern and Southern, industries and undertakings which did not, or could not afford to, pay wages comparable with those offered by the sisal industry, suffered from a shortage of labour. Generally speaking, however, the overall position proved to be more favourable than had been expected in a year of plentiful harvests.

The shortage of skilled labour still persists however, and urgent attention is being given to means by which this may be remedied by improved training facilities, trade-testing, apprenticeship, etc.

Training.—The problem of establishing an effective apprenticeship and trade-testing system was studied and it is hoped to appoint an advisory committee, including representatives of both employers and workers, to formulate a realistic and practicable policy. Consideration is being given in consultation with the other East African territories, to a revision of the legislation governing apprenticeship contracts in order to provide more effective safeguards for both parties. Similar consultations have been held with a view to achieving uniformity in the standards of trade-testing. The main difficulty in Tanganyika is that of devising an effective system of testing the large number of tradesmen and artisans scattered throughout the Territory.

The trade school at Ifunda has accommodation for five hundred trainees and gives courses of instruction of three years' duration. It has been decided to supplement this with a further two years' course of "on-training" in industry

At the end of 1951 the courses and numbers enrolled were as follows:—

Carpenters	90	Electricians	19
Masons and Bricklayers	40	Vehicle Mechanics	36
Painters	14	Tractor Mechanics	20
Plumbers	15	Tailors	9
Welders	4	Shoemakers	7
Turners	10		
Blacksmiths	6	Total	275
Tinsmiths	5		

Further consideration was given during the year to the siting of two new trade schools.

During 1951 certain Government departments have applied the principles of the Training Within Industry for Supervisors scheme. The Agricultural, Veterinary, and Medical departments have various training schemes. Trading facilities provided by High Commission services include the railway training school at Tabora where twenty-five students were under training during 1951. Thirteen members of the railway staff also attended the school for refresher courses. Ninety-six students from Tanganyika were being trained by the East African Posts and Telecommunications Department during the year at their central training school in Nairobi. In addition to this governmental programme increasing facilities for training are being made available by private enterprise.

COMPARATIVE TABLE OF TOTAL NUMBERS OF INDIGENOUS PERSONS IN EMPLOYMENT 1945—1951

		Casual Workers	Regular Workers	Total
1945	Labour Census at 15.2.45	3,083	342,200	345,283
1947	Labour Census at 20.2.47	10,708	348,416	359,124
1949	Labour Census at 15.9.49	34,661	439,327	473,988
1951	Labour Census at 31.7.51	74,350	381,048	455,398

INDUSTRIAL CLASSIFICATION OF ALL REPORTED AFRICAN EMPLOYEES

Main Industry	1951 Number	%
Government	17,415	3·8
Local Government	13,797	3·0
Agriculture	232,481	51·1
Ginning	2,403	0·5
Forestry and Fishing	4,364	1·0
Transportation	24,120	5·3
Wholesale and Retail Trade	19,949	4·4
Manufacturers (including electricity)	26,022	5·7
Mining and Quarrying	18,329	4·0
Construction	45,034	9·9
Other Services	51,484	11·3
	455,398	100

NOTES: Administrative and other workers. All Government employees working in other industries have been allocated to those industries.

Manufacturers includes Timber Production.

Domestic servants except those shown on returns of other industries included in Other Services.

Local Government includes Native Administration.

Casual labour included in all figures.

Currency and Credit Facilities

The East African Currency Board, with headquarters in the United Kingdom, provides for and controls the supply of currency in Tanganyika, Kenya, Uganda and Zanzibar. Currency issued in any one of these territories may circulate freely in all of them, so that it is not possible to state the amount circulating in Tanganyika alone. The total circulating in East Africa does, however, provide a useful guide to economic development if the method of operation of the Currency Board is borne in mind.

Currency is issued or redeemed locally against payment of the face value to or by the Board in London, subject to a commission rate of quarter per cent each way. The Board has therefore to absorb large quantities of currency in times of depression or deflation and to issue additional quantities as required in times of boom or inflation. After a chequered early career, the Board is able to meet such fluctuations with ease now that its assets have been built up to a figure representing 100 per cent cover for the circulation. There is no fiduciary issue and no power to vary the par of the East African shilling. The Appendix shows the very striking growth in the circulation since 1938, even excluding the remnant of the special issues for use in the Occupied Territories and Ethiopia.

Commercial banking facilities are provided primarily by banks incorporated in the United Kingdom. Although the scope of loans and advances is increasing as East Africa develops economically, the more liquid assets are still held mainly in London, for two reasons—the absence of any local media of investment which can be turned quickly into cash and the need for a ready source of sterling in London for presentation to the Currency Board when the local demand for cash increases.

The Appendix shows the movement in the main items constituting the assets and liabilities of the commercial banks in Tanganyika and Zanzibar since 1938. (Separate data for the two territories are not available). The growth in loans and advances to industry and agriculture from 1949 onwards is very marked, showing an increase from £1,706,000 in 1949 to £4,107,000 in 1951.

A Land Bank, which has been in operation since the 1st January, 1949, provides loans to farmers, co-operative societies and native authorities for agricultural purposes. Some details of its operations are shown in the table at the end of this section. On 31st December 1951 the total amount of outstanding loans was £292,000.

Banking facilities for small depositors are offered by the Post Office Savings Bank. The growth in balances held, which could be attributed to special factors during the war, continues unabated. The table shows the position on the last day of various years.

It remains to be said that capital investment in new enterprises or expansion of existing enterprises still depends on oversea facilities—especially the London market—whenever really large sums are involved.

EAST AFRICAN CURRENCY BOARD CURRENCY IN CIRCULATION

£'000

	Coins	Notes	Total	Total in East Africa
1938—30th June...	3,800	2,700	6,500	6,500
1948—30th June...	7,094	16,585	23,679	20,195
1949—30th June...	8,374	18,865	27,239	23,949
1950—30th June...	8,943	20,635	29,578	26,072
1951—30th June...	10,957	28,430	39,387	36,357

NOTE: East Africa is used to indicate Tanganyika, Kenya, Uganda and Zanzibar. The currency was introduced in Somalia, Eritrea, British Somaliland and Ethiopia at various dates subsequent to August, 1941, and was withdrawn except from British Somaliland during 1949 and 1950.

COMMERCIAL BANKS IN TANGANYIKA AND ZANZIBAR

POSITION AT 31ST DECEMBER

£'000

	1938	1948	1949	1950	1951
Liabilities:					
Deposits	1,799	12,941	13,107	17,539	20,064
*Balances due to Banks	1,066	385	439	1,953	2,613
Other liabilities	45	87	112	199	442
Total ...	2,910	13,413	13,658	18,791	23,119
Assets:					
Cash	459	850	952	1,297	1,562
*Balances due from Banks ...	896	10,637	9,150	12,850	13,836
Loans and Advances and Bills Discounted:					
Industry	1,527	425	445	1,031	2,085
Agriculture		184	1,261	1,219	2,022
Other		1,204	1,723	2,070	3,327
Investment in East Africa ...	—	—	—	30	30
Other Assets	28	113	127	324	257
	2,910	13,413	13,658	18,791	23,119

*Banks in territory and elsewhere, including branches in East Africa.

POST OFFICE SAVINGS BANK

£'000

	Average Monthly Deposits	Withdrawals	Balance at 31st December
1938	7	7	121
1948	51	30	1,285
1949	66	43	1,596
1950	57	45	1,785
1951 (provisional)	68	54	1,949

TANGANYIKA LAND BANK

£'000

	Loans issued during the year: Long term	Short term
1949	62	29
1950	87	38
1951	51	62

Public Finance

A summary statement of central government revenue and expenditure in recent years is given at the end of this section. The rapid increase in the size of the budget, which has approximately doubled in three years, reflects a combination of economic development and rising prices.

Revenue.—The direct taxation system consists of six groups:—

(a) Native House and Poll Tax; (b) Non-Native Poll Tax; (c) Municipal House Tax; (d) Estate Duty; and (e) Income Tax.

The continuing increase in price levels and wage rates in the post-war years is inevitably reducing the yield in real terms. Increased rates for some of these taxes were to be expected and materialized in 1951.

Indirect taxation is far more important in Tanganyika than direct taxation. Import duties, in particular, bring in a higher revenue than all forms of direct taxation combined. The yield of import duties rose by about one-sixth compared with 1950, closely parelelling the rise in the value of imports. Owing to the considerable rise in prices of the commodities concerned, and also because of the temporary duty imposed on cotton for the first time, the yield from export duties grew in relative importance in 1951 and amounted to some forty per cent of the import duty yield as compared with twenty-four per cent in 1950. Since they are more narrowly based than import duties the export duties are more vulnerable to price changes.

Expenditure.—The combined expenditure on territorial and development accounts rose by about twenty per cent compared with 1950. The cost of living award in 1951 amounting to some £500,000 was a heavy new item, while the Defence, High Commission, and Education heads showed considerable increases. The 127 per cent rise under the Public Works Recurrent vote indicates the greatly enlarged responsibilities of the Public Works Department consequent on the capital development programme.

Apart from availability of funds to meet proposed capital expenditure, the size and nature of the expenditure must also depend on the capacity of the Territory to meet its recurrent implications. The proposed rearrangement of the Budget into capital and recurrent sections will facilitate control in this respect.

CENTRAL GOVERNMENT FINANCE

I.—Territorial Account

£'000

	1948	1949	1950	1951
Revenue:	£	£	£	£
Customs	3,220	3,800	4,416	5,645
Licences and Taxes, etc.	2,267	2,679	3,741	4,087
Other	1,478	2,106	2,240	2,199
Total ...	6,965	8,585	10,397	11,931
Expenditure:				
Recurrent	5,137	6,670	8,018	10,633
Special	249	225	544	565
Extraordinary	162	286	278	248
Subsidization and Temporary Bonus ...	337	36	12	510
Widows' and Orphans' Pensions Scheme ...	27	29	31	34
Transfer to Reserve	*470	*526	1,240	315
Total ...	6,382	7,772	10,123	12,305

*Includes Salary Award Reserve of £470,000 in 1948 and 76,000 in 1949.

CENTRAL GOVERNMENT FINANCE

II.—Development Account

£'000

	1948	1949	1950	1951
Revenue:	£	£	£	£
Colonial Development and Welfare Grants ...	267	566	1,093	1,175
Agricultural Development Fund	128	193	259	322
Development Plan Reserve	*217	*320	*547	782
Funds in Anticipation of Loan	311	663	1,027	2,070
	923	1,742	2,926	4,349
Expenditure:				
Conservation and Development of Natural Resources	326	462	626	632
Communications	166	410	1,108	1,391
Social Services	112	236	336	184
Public Buildings and Works	272	341	906	1,101
Miscellaneous	120	238	462	522
	996	1,687	3,438	3,830

*Includes Native Authorities contribution.

II.—PRODUCTION AND TRADE

Agriculture

Generally speaking there was a considerable increase in the production of the main crops of the Territory in 1951, and a more than proportionate rise in their value. This increased production was not solely due to the relatively favourable climatic conditions but also to the appreciable expansion of acreage cultivated.

Agricultural policy has, as hitherto, been directed towards the attainment of self sufficiency in food crops and the maximum production of cash crops consonant with sound agricultural practice.

The achievement of these two broad objectives is dependent on a variety of factors among which are the adoption by the cultivator of more efficient methods and proper soil conservation practices, the provision of better and more disease-resistant seed, and adequate communications to enable the crop to be disposed of when harvested. In addition the possibilities of mechanical cultivation and of irrigation where feasible are important factors as is the provision of better capital equipment to the African cultivator in particular. The Agriculture Department with its considerable training, instructional, experimental, and research programme is making a co-ordinated attack on all these problems of agricultural development.

For the second year in succession the production of grain was sufficient to meet the internal needs of the Territory and to provide an exportable surplus. The production of cash crops for export showed generally a considerable increase with the exception of cotton.

African Agriculture.—Notable features of the year included the record tonnages of maize sold in many areas; the record paddy crops in the Eastern Province and the greatly increased demand for tractor ploughing in the Rufiji District, the prosperity of the native coffee growers of the Bukoba and Kilimanjaro and other areas who produced 15,000 tons of coffee; the substantial exports of dried cassava and cashew-nuts from the Southern Province; the increased cultivation of castor seed in the majority of the Provinces; and the successful stimulation of native groundnut cultivation by an increase in the price to the grower.

Estate Agriculture.—The 133,000 tons of sisal produced by the estates constituted by far the most valuable export product of Tanganyika. Deliveries of parchment coffee grown by estates in the Northern, Tanga, and Southern Highlands Provinces during the 1951-52 seasons are expected to total some 2,500 tons. Nearly 3,000,000 lb. of flue-cured tobacco, over 2,347,000 lb. of tea, some 1,600 tons of seed beans, 8,803 tons of plantation white sugar, and 301 tons of pyrethrum were produced.

In addition to the considerable contribution to food supplies in the form of maize, wheat, beans, and other food crops made by non-native farming, a further large quantity, the amount of which does not appear in statistics, was grown by estates for consumption by their own workers. The sisal industry is particularly important in this respect. Many other crops such as papain, kapok, cotton, essential oils, cinchona, copra, castor seed, fruits and vegetables were grown by non-natives.

Overseas Food Corporation.—At the beginning of the year the following acreages of crops were either growing or in the process of being planted.

	Groundnuts	Maize	Sorghum	Others	Total
Kongwa ...	4,200	3,810	4,250	20	12,280
Urambo ...	24,700	13,000	5,000	1,300	41,000
Nachingwea ...	4,440	3,140	190	290	8,060
	30,340	19,950	9,440	1,610	61,340

Apart from a difficult harvest at Urambo due to heavy rains in March and April, the weather was generally favourable and fair yields were obtained with few exceptions. The yields of the three main crops were approximately as follows:—

	Lb. per Acre		
	Groundnuts	Maize	Sorghum/Millet
Kongwa ...	425	1,750	1,080
Urambo ...	395	1,075	580
Nachingwea ...	460	1,050	610
Average ...	410	1,200	805

About 4,800 tons of groundnuts were exported or waiting to be shipped. Over 8,000 tons of maize were surplus to requirements for rations and offered to the Government Grain Storage Department. About 2,250 tons of Sorghum were exported and the remainder, nearly 1,000 tons, was available for internal sale.

No further clearing was done at Kongwa during the year, and land clearing operations were completed at Urambo. Clearing at Nachingwea continued on a reduced scale using hand methods in place of expensive mechanical operations.

European staff was reduced during the year from 1,334 to 678 and non-European staff from 15,533 to 12,089.

A big programme of construction was carried out and included a new hospital in both Urambo and Nachingwea; also in the same areas crop storage buildings, workshops, offices and water supply schemes. In addition, apart from maintenance and small projects, there was a programme of house-building in the "town areas" and farmsteads to be erected as new farms were started. In all, forty-six European and 1,342 non-European houses were completed during the year.

Marketing and Grading.—The purchase of maize, wheat, white sorghum, mixed beans and paddy remained under Government control at prices fixed at railhead or grain store.

Basic prices were higher than in 1950 as indicated below:—

	Per 200 lb.	
	1950	1951
	Shs. Cts.	Shs. Cts.
Maize and Sorghum (unbagged) ...	21/00	28/60
Wheat (Grade I) (unbagged) ...	37/25	45/33
Mixed Beans (unbagged) ...	26/40	49/20

Other produce was price controlled at the following rates applicable to railhead:—

	Shs. Cts.		Shs. Cts.
Groundnuts (per 100 kg. unbagged) ...	... 44/00	...	55/00
Sesame (per 100 kg. unbagged)	... 44/00	...	55/00
Dried Cassava (per 100 kg. unbagged) ...	... 11/00	...	27/40 (Southern Province)

The marketing agents for the Southern Highlands Non-Native Tobacco Growers' Union now post a leaf expert at Iringa during part of the season and this has resulted in an improvement in the quality of the 1951 crop.

The Tanganyika Pyrethrum Board maintained its close association, in marketing policy, with the Kenya growers, and continued to dispose of the crop through the same agent. The price received is based on sampling and chemical analysis.

The 1951/52 coffee crop is the last of the period covered by the contracts made between the Tanganyika Coffee Growers' Association in conjunction with the Kilimanjaro Native Co-operative Union, and the United Kingdom Ministry of Food. The African body gave notice of intention to market its own coffee separately on the expiry of the contract.

The Bukoba Native Coffee Board which also has a contract for part of its crop is negotiating for further contracts.

Bulk sales of cotton were made to the Raw Cotton Commission at 50*d.* per lb. f.o.b. for Mwanza cotton and 55*d.* per lb. f.o.b. for Central Line. The export arrangements are in the hands of the Uganda Lint Marketing Board and Eastern Province Exporters' Group respectively.

Price control on tea was raised to the extent that the growers organizations agreed to ensure that adequate supplies of the tea were provided for East Africa consumption.

Production Committees.—A basic function of these committees is to advise on the eligibility of farmers for the "minimum return" payments which are payable in respect of certain crop failures or partial failures. These payments are designed to encourage non-native farmers to grow basic food crops rather than concentrate exclusively on other, and often more profitable, crops. The record tonnages of maize produced by the non-native farmers of the Northern Province in 1951 were, no doubt, due in part to the security provided by this guarantee of a minimum return. A total of £6,188 was paid to farmers in 1951 in respect of partial and complete crop failures.

The two sections that follow show in more detail the position regarding the main food crops and the main cash crops. Agricultural statistics are not yet on a satisfactory basis, although considerable improvement has been made, and it must be emphasized that the figures are valid only for indicating broad trends. It is also necessary to bear in mind that annual differences in production and value may be due to a number of variables including the weather and world demand.

NOTES ON THE MAIN FOOD CROPS

Maize, Sorghum and Millets.—1951: Acreage 3,300,000; Production 800,000 tons; Value £12,000,000.

Viewed generally, there was an excellent crop of maize for the second year in succession. Over 6,000 tons were exported and grain storage accommodation was in general fully utilized at the end of the year.

Root Crops.—1951: Acreage 880,000; Production 880,000 tons; Value £11,440,000.

The acreage of cassava in the Territory has now been brought up to a figure which should afford fairly substantial reserves of food in the event of a grain-crop failure. In good years it is also a useful source of cash. The main producing areas are the Southern and Western Provinces.

Pulse Crops.—1951: Acreage 800,000; Production 100,000 tons; Value £3,200,000.

Although there was an estimated fall in total production owing to adverse weather conditions, the total marketed pulse crop, largely owing to the higher prices, exceeded that of 1950 by some 10,000 tons.

Rice (Paddy).—1951: Acreage 130,000; Production 71,500 tons; Value £1,430,000.

The year was, in general, a favourable one for paddy, and in the Eastern Province and Western Province, both yields and acreages were substantially higher than in 1950. The increase in the former Province was largely due to the 3,000 acres of additional paddy which resulted from the Rufiji Native Authority Scheme under the technical and field direction of Agricultural Departmental staff.

Wheat.—1951: Acreage 30,000; Production 8,000 tons; Value £176,000.

Yields in general were poor and the acreage cultivated by non-natives decreased although this was compensated for by an expansion of African cultivation particularly in the Southern Highlands Province.

FOOD CROPS

Acreage, Production and Value (Approx. F.O.R. Bagged)

	Acreage, Production (Tons), Value			
	1948	1949	1950	1951
Maize, Millet, Sorghum:				
Acreage	2,947,000	3,140,000	3,150,000	3,300,000
Production	760,800	516,300	625,000	800,000
Value £	8,368,800	6,189,600	7,500,000	12,000,000
Root Crops (Cassava and Sweet Potato)				
Acreage	825,000	705,000	710,000	880,000
Production	1,101,000	801,700	800,000	880,000
Value £	8,808,000	6,413,600	7,200,000	11,440,000
Wheat:				
Acreage	39,000	39,000	25,000	30,000
Production	4,270	9,200	9,000	8,000
Value £	72,570	165,600	189,000	176,000
Unhulled Rice (Paddy):				
Acreage	124,000	111,000	110,000	130,000
Production	49,200	30,300	55,000	71,500
Value £	590,400	393,900	880,000	1,430,000
Pulse Crops:				
Acreage	698,000	777,000	780,000	800,000
Production	105,000	112,000	115,000	100,000
Value £	1,470,000	2,016,000	2,200,000	3,200,000

Approximate Crop Values Per Ton (F.O.R. Senders Station)

	1948	1949	1950	1951
	£	£	£	£
Maize, Millet and Sorghum	11	12	12	15
Root Crops	8	8	9	13
Wheat, Grade 5	17	18	21	22
Unhulled Rice (Paddy) ...	12	13	16	20
Pulse Crops	14	18	20	32

Note: The value of the above commodities published in previous reports has related to the price paid to producer for the naked crop.

NOTES ON MAIN CASH CROPS

Sisal.—1951: Acreage 539,000; Production 145,000 tons; Value £24,250,000.

Estates produced nearly ten per cent more line fibre and tow than in 1950, and the 11,764 tons of hand extracted sisal estimated to have been produced by Africans from boundary-hedge plantings was nearly twice the 1950 tonnage.

Estates made still greater use of mechanical clearing and cultivating equipment. There was a substantial rise in the rates of pay for estate workers, but the supply of labour fell short of the demand in spite of such innovations as the chartering of aircraft to transport recruits. Unusual weather conditions resulted in sun scorch in some areas. but though this may result in a decrease in the percentage of the higher grades of fibre during 1952 no reduction in total yield is expected. Market quotations rose at one time to £245 per ton c.i.f. for No. 1 grade, and at the end of the year remained at the very high level of £213.

Coffee.—1951: Acreage 105,000; Production 17,500 tons; Value £4,400,000.

The production of both arabica and robusta coffee showed a further increase and stable and remunerative prices have permitted considerable outlay on the improvement of both native and non-native plantings. The individual native growers' reaction to good coffee prices is to increase plantings rather than improve existing coffee areas, but the Boards and Department officers concerned have done much to divert a proportion of the growers' profits to safeguarding future yields by borer-control measures, better priming, soil conservation, manuring and mulching, and the use of good seed for new plantings.

Cotton.—1951: Acreage 191,000; Production 26,600 tons; Value £1,004,000.

The total territorial cotton crop in 1951 showed a slight decrease as compared with 1950 although there was a small increase in the Lake Province. The main decrease was in the Eastern Province where the 1951 crop was only about thirty-six per cent of the 1950 crop. Production would probably have been substantially greater but for the fact of the good grain harvest of 1950 and the high returns from other cash crops including hedge-row sisal which diminished the incentive of the African grower to expand his cotton cultivation. The high prices obtaining for castor and sunflower, crops which require less labour, have had a marked effect on cotton acreage in the Eastern Province.

It is reported from the Lake Province that the bulk of the planting for the 1952 crop was completed before the end of 1951 and the 1952 crop production is expected, if weather conditions are favourable, to exceed that of 1951.

Groundnuts (excluding O.F.C.).—1951: Acreage 140,000; Production 20,000 tons; Value £500,000.

As the result of an increase in the price to the grower, and the availability of seed stocks from 1950 harvests, there was a substantial increase in the tonnage grown and marketed.

Copra.—1951: Acreage 114,000; Production 10,000 tons; Value £500,000.

Generally the fruiting of coconuts showed the effect of the severe drought of 1949/50, and in the Tanga and Eastern Provinces there was a marked decline in the production of copra. In the Southern Province where the bulk of the coconut crop is normally consumed as fresh nuts, copra production showed little change.

Additional reasons for the decrease in output were increased sales of fresh nuts, insect damage, neglected cultivation, and fires. Special attention is being given by the Agriculture Department to teaching and propaganda directed towards the sanitation and improvement of coconut groves, and the production of better copra.

Tobacco—1951: Acreage 16,000; Production 2,700 tons; Value £360,000.

The commercial production of flue-cured tobacco is at present confined to the Iringa area of the Southern Highlands Province where production increased from 1,200 tons in 1950 to 1,325 tons in 1951. The handling, grading and picking of the 1951 crop has been under close supervision, and the output, which is being marketed on a commission basis by a well known firm of brokers, is expected to be of good quality. The Mgwina and Tunduru areas of the Southern Province may prove suitable for the production of flue-cured tobacco, and officers of the Agriculture Department are continuing their investigations.

The areas of Songea (Southern Province) and Nyamirembe (Lake Province) produced fire-cured tobacco. The Songea crop fell to about half the record crop of 1950 but the quality is reported high. A new and enlarged conditioning and grading factory has been erected. In Nyamirembe production was a record. The produce of this area is readily absorbed by the cigarette manufactures of Kampala, and the new grading floor, which was opened in 1950, enabled the crop to be handled efficiently.

Sugar and Jaggery.—1951: Acreage 7,000; Production 11,500 tons; Value £350,000.

Sugar production by the only large estate in the Territory, at Arusha Chini in the Northern Province, was substantially higher than in previous years. The production of jaggery also increased from 2,110 tons in 1950 to 2,697 tons in 1951 amounting to 8,803 tons compared with 8,190 tons in 1950. Fertilizer trials indicate the possibility of a significant increase in yield per acre.

The Kilombero Valley is now being surveyed with a view to the establishment of further large scale sugar plantations.

Tea.—1951: Acreage 10,000; Production 1,000 tons; Value £250,000.

Both the acreage under tea and production have shown a steady increase over the last few years, and further considerable acreages are planned for planting. In the Southern Highlands and Western Usambaras the area of tea in actual leaf production remains around 8,000 acres, but recently matured areas in the Eastern Usambaras began, for the first time, to supply the modern factory which was recently completed on the largest estate. Valuable consignments of tea-seed were exported mainly to estates in Kenya.

Other Crops.—The production of sunflower increased generally although there was a decline in the Southern Highlands and Central Provinces, due in part to the high prices offered for castor seed.

The total production of sésame increased and it seems to be steadily gaining in popularity in the Southern Province which is the main producing area.

There was a slight fall in the production of pyrethrum in the Northern Province which, however, was more than compensated for by the increase in the Southern Highlands Province where the acreage was extended.

There has been a marked revival of interest from 1950 in the production of papain and some 20,504 lb. were railed from the main centre (Arusha) during the year. There are indications that this figure will be greatly exceeded in 1952.

The marketed tonnage of castor seed increased to 3,925 tons in 1951 as compared with 1,990 tons in 1950 due largely to the high prices ruling, and its cultivation is extending in many parts of the Territory. This expansion of cultivation may have an adverse effect on food production, and, in the Eastern Province in particular, on cotton production.

The production of cashew-nuts, which has increased in recent years showed a further rise in the Southern Province and remained at about the 1950 figure in the Eastern Province. In the Southern Province, interest among non-native growers, small in number at present, is growing. Inquiries have been received concerning the possible erection of a shelling, processing, and packing station. Increased planting by African growers is reported from the coastal districts.

CASH CROPS

ACREAGE, PRODUCTION AND VALUE (APPROX. F.O.B.)

	ACREAGE, PRODUCTION (TONS), AND VALUE			
	1948	1949	1950	1951
Sisal:				
Acreage	399,000	407,000	430,000	539,000
Production	121,700	123,300	121,600	145,000
Value £	9,738,000	11,970,000	11,846,000	24,250,000
Coffee:				
Acreage	96,000	103,000	105,000	105,000
Production	95,900	16,600	16,500	17,500
Value £	1,110,000	1,820,000	4,125,000	4,400,000
Cotton (Seed):				
Acreage	138,000	184,000	190,000	191,000
Production	59,700	25,300	29,500	26,600
*Value £	1,542,000	359,000	885,000	1,004,000
Copra:				
Acreage	84,000	113,000	113,000	114,000
Production	9,400	18,700	17,000	10,000
Value £	164,000	692,000	680,000	500,000
Groundnuts:				
Acreage	153,000	139,000	140,000	140,000
Production	16,700	10,900	9,800	20,000
*Value £	293,000	359,000	225,000	500,000
Sugar and Jaggery:				
Acreage	6,600	5,900	6,000	7,000
Production — Plantation	6,600	7,659	8,190	8,803
Production — Jaggery	6,088	141	2,110	2,697
Production — Total	7,900	7,800	10,300	11,500
Value £	143,000	247,000	260,000	350,000
Tobacco:				
Acreage	12,400	15,200	15,500	16,000
Production	2,000	2,300	2,900	2,700
*Value £	308,000	353,000	365,000	360,000
Tea:				
Acreage	8,300	8,500	9,500	10,000
Production	660	710	800	1,000
Value £	83,000	148,000	180,000	250,000

*Price paid to Producer.

LIVESTOCK

There has been a steady increase in the number of livestock in Tanganyika over the last twenty-five years interrupted in 1949 by the drought and famine which caused severe losses from which the cattle population has not fully recovered. The figures for cattle, sheep and goats are:—

	1925	1938	1948	1951
Cattle	4,472,000	5,087,000	6,425,000	6,263,000
Sheep and Goats ...	4,333,000	4,761,000	5,123,000	5,817,000

Approximately 1,000,000 cattle die or are slaughtered each year and produce some 170,000,000 lb. of beef; similarly some 1,800,000 sheep and goats produce about 19,000,000 lb. of meat. Taking the human population of this Territory as seven million, the average consumption works out at about half a pound of meat per head per week. It must be emphasized as in the previous section, that the figures given are estimates valid only for indicating broad trends and relationships.

The Slaughter Stock Trade.—The Livestock industry is under the general control and direction of the Livestock Board established in 1949 under the Livestock Control Ordinance. Auction markets have been set up and are run by Native Authorities in all stock-raising areas. Here the livestock owner sells to the licensed trader, butcher, or to the Tanganyika Packers' buyer.

Tanganyika Packers Limited, in which Government holds fifty-one per cent of the shares and Messrs. Liebigs Limited forty-nine per cent, has built an up-to-date canning and by-products factory near Dar es Salaam capable of dealing with eighty thousand head of cattle per year. About 36,000 head of cattle were purchased by the Company of which some 24,000 came from the Lake Province and 9,000 from the Western Province. It is considered that this factory will play an important part in providing a stable market for all types of cattle. In addition the Tanganyika Packers Limited has practically completed a central *abattoir* outside Arusha with extensive refrigeration capable of dealing with fifty thousand cattle a year. The objective is to centralize slaughtering of stock for wholesale marketing in Arusha and Moshi districts and Tanga Province.

The total cattle marketed in 1951, 181,223, is the lowest since 1947 and 30,589 less than in 1950 although the price was almost double the 1950 figure. This was partly due to the good prices obtained for agricultural produce and also to the inadequate supply of consumer goods in the pastoral areas.

Sheep and Goats Sales.—The small stock trade is of major importance, and the combined number of sheep and goats fall little short of that for cattle. Taking the higher breeding rate into consideration, it is obvious that more small stock are available for slaughter for food than cattle.

Pork, Bacon, Lard and Pig Products.—The total annual production of pig products in Tanganyika is estimated at over 375,000 lb. of which approximately half is sold as fresh pork and the other half as bacon, ham, sausages, lard, and a small quantity of tinned products. Production mainly meets only local provincial requirements, except in the Central Province from which some pig products are exported by the Tanganyika Bacon Factory to other consuming centres in, and outside of, Tanganyika. Some pork from Iringa and Tabora is flown to Dar es Salaam.

Hides and Skin Industry.—Hides and skins have always been an important export of Tanganyika and the activities of the Veterinary Department have been largely concentrated on the improvement of their quality by restricting destructive branding and teaching better methods of preparation. The introduction of the suspension air-dried method was a big advance on previous methods. Considerable improvements are still possible in the marketing arrangements and these are now under consideration.

The East Africa Hides, Tanning, and Allied Industries Bureau was established in 1949 under the ægis of the East Africa Production and Supply Council to foster the development of the hides and skins export industry and the local tanning and footwear industry. The Bureau advises East Africa Governments on matters affecting the welfare and development of the local industries and on measures to improve preparation and marketing.

Of the Tanganyika production of hides and skins only some 3·5 per cent are tanned locally, and the remainder are exported. There is no marked seasonal production of hides and skins, and the only geographic concentrations are the urban slaughter houses and the factory of Tanganyika Packers Limited. The latter is the only source of wet-salted hides—the great majority of hides being air-dried by the many individual owners scattered over the Territory. Hides and skins were the third most valuable raw material exported in 1951, and amounted to £1,677,000.

The considerable increase in the percentage of suspension dried hides and skins to the total of all kinds exported is a measure of the success of the improvement services.

	1940		1950
Hides	21·2%	...	64·6%
Skins	3·8%	...	79·1%

Tanning Industry.—This is dealt with under the section "Industry".

The Dairy Industry.—The milk supply to townships is very inadequate both in quantity and quality, and in order to augment supplies Government has established dairy farms at Dar es Salaam and Tanga, and more recently at the Prison Farm at Kingolwira. A new dairy is now being developed at Lindi, headquarters of the Southern Province. Government stock farms are demonstrating the possibility of higher productivity and the introduction of the improved cattle strains of Zebus being developed at Veterinary Department's farm at Mpwapwa should have a considerable effect.

Attention to marketing is required in certain areas, for example Arusha, where the fresh milk market is reaching saturation point, and a co-operative creamery will shortly be needed to handle the fresh milk and to make use of the surpluses for butter and cheese.

The Clarified Butter and Ghee Industry.—Ghee making has been carried on in Tanganyika for a long time but until comparatively recently the quality was very poor. In 1941 legislation was introduced prescribing standards for grading with price and distribution control and at the same time a scheme for grading and licensing operators had a beneficial effect on quality. This was followed in 1947 by the Lake Province Ghee Scheme financed from development funds and there is now an encouraging percentage of first grade ghee produced.

In 1932 the first of a chain of creameries, financed by Native Treasuries, was established and supervised by Government officers at Kondoa Irangi—the objective being to separate cream from milk and to turn out a high quality butter fat, the skimmed milk being returned to the owners. Following the success of this venture further creameries were established until by 1939 most of the important cattle areas were covered. In the post-war period, however,

a series of indifferent seasons culminating in the drought of 1949 has led to a decline in production. Five hundred and thirty-eight tons of clarified butter, and 390 tons of ghee with an estimated value of £192,000 were produced during the year.

The following figures which are estimates of the value of livestock, and livestock products, marketed by primary producers gives an idea of the importance of the industry to the Territory.

	£
Cattle	1,362,000
Small Stock	104,000
Hides and Skins	926,000
Clarified butter and Ghee ...	192,000

Forestry

The Territory's production of timber in 1951 amounted to some 53,000 cubic tons. Of this quantity about eighty-five per cent came from public lands and forest reserves, and fifteen per cent from privately-held land. About thirty-five per cent of the total production was exported. Large quantities of other forest produce have been exploited for local consumption but of this only limited records can be kept. These show 580,000 building poles and sixteen million solid cubic feet of firewood as being cut during 1951 as compared with 565,000 poles and thirteen million cubic feet of firewood in 1950 but this is exclusive of the large quantities of forest produce used by the indigenous inhabitants for their own domestic purposes.

Altogether fifty-seven sawmilling concerns and estate sawmills produced timber. A number of firms operated several mills each, so that there were about seventy-five mill units working. The three largest producers were the Grewal mills in the Western Usambara, at Minziro and on Kilimanjaro, which produced approximately 15,000 cubic tons between them. Messrs. Timber Concession in the Central Division and Messrs. Tanganyika Timbers in the Tanga Division produced another 5,000 cubic tons, but few other mills produced more than 100 cubic tons a month. The Rondo mill (Steel Brothers Limited) did not start producing sawn timber until December.

The Colonial Development Corporation's wattle growing scheme at Njombe progressed according to plan. The building programme is nearly finished, whilst 150 miles of road have been completed. During the year 3,483 acres were sown to wattle, 6,960 acres of land were prepared for seed, and a further 6,205 acres were cleared for ploughing. About 100 acres were pitted for experimental planting with pines. The European staff number thirty.

In addition the Native Authorities at Njombe planted seventy-eight acres of wattle and it is planned to plant about seventy acres a year for ten years, the bark to be sold to the Colonial Development Corporation. Local Africans are establishing their own wattle plantations in this area.

New forest reserves covering some 420 square miles were proclaimed during the year, bringing the total reservation up to some 8,822 square miles. Quite apart from the important climatic considerations connected with afforestation, this figure, representing approximately 2·5 per cent of the Territory's total land area, is insufficient to ensure a sustained production of forest and the Forests Department's programme aims at increasing the area under reserve to

eight per cent of the total land area. Good progress has been made in silviculture. On Kilimanjaro and in the Usambaras the area of camphor plantations was increased by 1,722 acres to 15,532 acres and 1,465 acres of regeneration were successfully treated. Softwood planting trials were carried out at a number of places. It is known that much of the Territory is suitable for softwoods but further details in regard to species, techniques, etc., need to be worked out before large-scale schemes are undertaken. There appears little doubt that in some areas hardwood supplies have been overcut. Sock-takingd is an urgent necessity and much of the time of the field staff has been devoted to this work. A survey of the Chome Forest and part of the Kilimanjaro forest was undertaken during the year jointly by the Government and a commercial firm and the results are now being studied. The only concessions granted over extensive areas are those which confer the right to exploit timber and other forest produce. At the end of 1951 thirty-nine forest concessions were in operation covering a total area of approximately 44,200 square miles.

Fisheries

Sea.—Coastal fishing is conducted almost entirely by the indigenous inhabitants, who use out-rigger dug-out canoes and small dhows for line and net fishing and also employ flat polygonal basket-work traps, fence traps, and throw nets. No statistics are available as to the total quantity and value of the fish caught.

The economic potentialities of coastal fishing are being investigated by the Fisheries Officer who has recently been appointed. A motor fishing vessel was acquired towards the end of the year, and investigation into the various fishing grounds and methods will be intensified in the coming year. It is hoped that when further information has been obtained it will be possible to increase considerably the quantity of fish marketed and to build up a healthy and efficient coastal fishing industry.

Lakes and Rivers.—The Lake fisheries yield about 1,500 tons of "dagaa" (small fish which are sun-dried before sale) and a considerable quantity of larger fish. Tilapia and other species are trapped in seasonal and permanent rivers and swamps. The value of the dried fish in 1951 was £121,400 some £10,000 more than in 1950. A European firm on the Malagarasi swamp buys tilapia from the fishermen, smokes it, and exports to the Belgian Congo. The fishing industry on Lake Rukwa, which was brought to a standstill owing to the drying up of large parts of the Lake is now recovering and is being controlled by a Board.

Research into, and the development of, inland fisheries is carried out by the Fisheries Officer (inland) whose headquarter is at Kigoma on Lake Tanganyika. A 45-foot motor fishing vessel is being fitted out and will be of great assistance in accelerating work. There has been a steady increase in advisory work carried out and inquiries have included several from other territories. Services rendered include identification of fish, advice on methods of fishing and the construction of fishing gear. The supply of fishing equipment is not satisfactory and efforts are being made to improve this. Preliminary investigations indicate that there are considerable possibilities of expansion in the fishing industry in the Malagarasi swamp. Trade with the Belgian Congo has been hampered to some extent this year by inadequate transport.

Fish Farming. - Considerable progress in this potentially very valuable industry has been made under the guidance of the Fisheries Officer (Fish Farming).

At Korogwe twenty-three fresh water ponds were in use for breeding, fry, the production of marketable fish, trials of fish production associated with paddy cultivation, and other experimental work.

Production ponds were constructed in the Korogwe area by a firm which operates a large number of sisal estates, for the purpose of supplying fresh fish to their staff and labour. In the Lake Province the number of production ponds at Malya were increased to four and eight dams and hafirs were in use for production and breeding. The Prisons Department operated a fish farm at Moshi, the yield forming part of the prisoners' ration. Fish ponds are being constructed in the Eastern Province, Tanga Province, and Southern Highlands Province.

Mining

Further progress was made during the year by the Government mining and geological departments in the assessment and development of mineral resources. Difficulty continued to be experienced in the recruitment of qualified mining staff but valuable assistance was given on the non-administrative side by two mining engineers and one mining geologist made available under the auspices of the Economic Co-operation Administration. Greater interest was taken in the Government scheme for the grant of loans to assist mineral development and production. The Geological Survey Department maintains well-equipped chemical, metallurgical and ore-testing laboratories, and services rendered to the mining industry include geological investigations, diamond drilling, metallurgical research, assays and analyses. A wide programme of geological mapping is being financed from the Colonial Development and Welfare Fund.

At the end of 1951 there were current sixteen exclusive prospecting licences in respect of areas totalling 2,872 square miles, and 2,118 mining leases and claims covering 396 square miles. Marked interest continued to be shown in base metal prospecting by leading mining houses, and during the year the grant of exclusive prospecting licences in respect of a further 1,931 square miles was approved.

Production

The total value of all mineral exports (domestic production) from Tanganyika during 1951 is estimated at £1,568,979. In addition, minerals estimated at £285,985 were produced and consumed locally. The total estimated value of all minerals exported or consumed locally, £1,854,964, represents a decrease of £211,940 compared with the figures for 1950. As in 1950, the decrease was again due to the suspension throughout the year of diamond exports and sales, although production was maintained, as a result of the dispute between the Company and the Diamond Corporation.

Gold.—Despite the artificially depressed price of gold which prevented the exploitation of low-grade ore reserves, gold production was maintained. Production costs continued to rise while the official price of the metal remained constant. The decision of the International Monetary Fund authorities at the end of September to leave the future enforcement of the Fund's gold policy

to member states resulted in a decision by the Government of Tanganyika to permit gold producers to sell up to forty per cent of their production for dollars in the premium market, subject to certain conditions. This concession provided some slight relief from the increasing cost of labour and materials.

Diamonds.—The production of gem and industrial diamonds continued on a scale comparable with former years, but there was a heavy drop in exports. This was due to a dispute between the principal producers, Williamson Diamonds Ltd., and the Diamond Corporation regarding prices, as a result of which the producing company suspended sales.

Coal.—Investigation of the coalfields in the Ruhuhu River basin in the Southern Province was continued by the Colonial Development Corporation assisted by Government geologists. The drilling campaign and geological mapping revealed much of the geological nature of the deposits and indicated the existence of an estimated forty million tons of extractable coal, while the gross tonnage so far located was probably several times this figure, but not all mineable. The feasibility of smelting ore from the Liganga titaniferous iron deposits, situated thirty-five miles away, by a process using coal, was demonstrated during the year. The results of the investigations in these two fields are likely to have a bearing on the question of a railway link between Tanganyika and Northern Rhodesia.

Mica.—The exports of sheet mica rose by about forty per cent over the 1950 figure and the value approximately doubled and was the third most valuable mineral export.

Lead.—At the Mpanda mine the pilot plant continued to operate satisfactorily and 2,965 tons of lead concentrates were reported as compared with 1,093 tons in 1950—the value of the export, increasing by over 340 per cent, was the second most valuable mineral export in 1951.

Underground development continues.

Tin.—Increased prices failed to have any effect on production which again declined. However, the Colonial Development Corporation were granted an exclusive prospecting licence over an area of approximately forty-four square miles in the Karagwe tinfield in the Bukoba District, and the Corporation has initiated a programme of systematic prospecting and proving of the tin deposits there.

Tungsten (Wolfram) Concentrates.—Exports were approximately the same as in the previous year but the estimated value was over four times as great.

Other Minerals.—An application for a Mineral Oil Exploration Licence was made in respect of the coastal region by an important oil group, and was under negotiation with Government at the end of the year.

The erection of a pilot plant by New Consolidated Goldfields Ltd. at the extensive kaolin deposits near Pugu, seventeen miles from Dar es Salaam, was completed.

The export of magnesite rose in quantity from 81·57 long tons in 1950 to 2,672·8 long tons in 1951, and relative values were £489 and £13,539. All production went to Kenya.

MINERAL PRODUCTION AND VALUE, 1948-51

	Production and Value			
	1948	1949	1950	1951 (Provisional)
Gold (refined):				
Production in Oz.	57,557	68,989	65,241	65,582
Value £	496,432	692,574	809,814	819,660
Diamonds:				
Production in Carats	148,103	191,771	70,597	*8,587
Value £	1,069,769	1,652,613	746,370	88,953
Tin Concentrates:				
Production in L.T.	132	153	129	92
Value £	51,973	65,432	76,078	67,713
Salt:				
Production in M.T.	11,883	12,854	13,880	16,106
Value £	85,777	98,477	114,377	131,095
Mica (Sheet and Ground):				
Production in L.T.	73·53	94·61	107·73	68·67
Value £	60,700	50,154	62,938	119,551
Kaolin:				
Production in M.T.	136	164	60	158
Value £	1,423	1,853	555	1,539
Lead Concentrates:				
Production in L.T.	—	—	642	2,965
Value £	—	—	84,917	334,263
Tungsten Concentrates:				
Production in L.T.	0·63	38·57	40·50	39·26
Value £	214	12,474	14,284	61,007
Magnesite:				
Production in L.T.	—	—	81·57	2,673
Value £	—	—	489	15,466
Copper Ore:				
Production in L.T.	—	—	36·36	N.A.
Value £	—	—	5,667	N.A.
Lime:				
Production in L.T.	5,136	5,773	8,505	6,065
Value £	15,915	16,510	18,989	22,493

*Although sales were suspended, production was maintained, but it cannot be valued until sale.

Industry

In the general industrial development of the Territory private enterprise and initiative plays a major part. During the year under review there has been continued development in privately financed agricultural, mining, and industrial activities.

From the list of industrial establishments given at the end of this section it will be seen that the major portion, in terms of numbers employed, is concerned with the processing of primary produce. In some cases most of the processed article is consumed locally, but in others the bulk is exported and figures are given in the chapter on foreign trade.

The development of processing and other industries is part of the policy of Government and several measures have been taken to encourage their establishment. Inducement for the investment of capital from outside the Territory is offered in various ways. Under the Customs Tariff Ordinance many articles needed in building construction, and also fixed plant and machinery for manufacturing and other industrial purposes, are admitted free of duty.

The Local Industries (Refund of Customs Duties) Ordinance passed in 1950 provides for the refund of customs duties on goods imported for use in local industries. The provision of the Ordinance have been applied in the case of metal tins, paints, distempers, and varnishes during the course of the year.

Under the Industrial Licensing Ordinance, 1948 the following manufactures are now subject to licensing by the East African Industrial Council:—

Cotton yarn.
Cotton piece-goods, other than knit-wear.
Cotton blankets.
Woollen yarn.
Woollen piece-goods, other than knit-wear.
Woollen blankets.
Glazed articles of pottery including glazed pipes, piping, and tubing, glazed tubes of earthenware, and glazed sanitary earthenware and stoneware.

Licences were granted in Tanganyika during 1951 for a cotton blanket factory and a factory manufacturing Muscat cotton cloth.

In many of the processing industries such as sisal, tea, sugar, and the treatment of mineral ores, the processing is carried out by the producers themselves. Such processes as cotton ginning, and coffee and tobacco curing are carried out at commercially-run establishments. A further major processing industry is the milling of edible oil seeds, such as copra, cotton-seed, groundnuts and sesame.

Industries other than those concerned with the initial processing of raw materials are still limited but are increasing in both number and variety. Those already established include the meat factory of Tanganyika Packers Limited which prepares and markets a variety of meat products for local consumption and export. The Metal Box Company manufactures tin cans and containers and is able to meet the demands of the meat factory, the fuel oil companies and the ghee and edible oil industries, in addition to exporting tins to meat factories in Rhodesia and the Sudan. There is a factory for the manufacture of oxygen and oxy-acetylene, a tannery and leather goods factory, a textile dyeing and printing works, a fruit juice industry, breweries, and numerous soap factories, brick and tile works and furniture-making establishments. During 1951 a paint and varnish factory began operations and a bottling factory was opened. Other projects in view are a cement works and a cotton blanket factory.

INDUSTRIAL ESTABLISHMENTS

Industry	No. of Premises	No. employed
Aerated water manufacture	34	401
Bread and flour confectionery	51	375
Brick and tile manufacture	5	222
Confectionery	5	24
Coffee pulping, milling, etc.	101	1,010
Cotton ginning	20	1,584
Cycle repairs	14	50
Dairy produce	12	42
Electrical engineering	7	64
Electricity generating	22	812
Essential oil extraction	3	101
Food canning and bottling	7	1,073
General engineering	41	1,399
General woodworking—includes carpentry, joinery and cabinet-making	166	2,599
Goldsmiths, jewellers, etc.	18	83
Hides and skins—sorting, bailing, etc.	11	155
Hollow-ware manufacture	2	23
Kapok ginning	2	32
Laundries and dry cleaners	29	108
Leather tanning and goods manufacture	4	145
Locomotive repairs	9	1,600
Milling (flour, oil and rice)	106	1,909
Motor vehicle repairs	114	2,347
Printing, book-binding	17	535
Saw milling	45	2,789
Sheet metal working	28	109
Shoe making/repairing	110	306
Sisal and sansevieria processing	207	20,460
Soap manufacture	17	258
Sugar and jaggery manufacture	24	646
Tailoring and dressmaking	986	2,537
Tea manufacture	6	458
Tobacco curing, etc.	7	308
Miscellaneous	45	1,077
	2,275	45,641

NOTES: (a) The above list includes all establishments covered by the definition of factories under the Factories Ordinance.

(b) Ninety-five per cent of the number of employees are Africans; and of these ninety-five are males.

INTERNAL TRADE

The commercial life of Tanganyika follows the pattern normally found in any country where the great majority of the inhabitants are agriculturists. It is largely concerned with the handling of the primary products of both indigenous and non-indigenous producers and the satisfaction of their requirements of consumer and other goods, either by import or by local manufacture.

The main centres of commerce are the ports of Dar es Salaam and Tanga but Moshi and Mwanza have been growing rapidly in commercial importance. Other towns owe their importance mainly to their position as collecting and distributing centres. All the importing and exporting houses have offices in Dar es Salaam. Some of the larger firms are organized on an East African basis, usually with their local head offices in Kenya, and with head offices in Europe. The Standard Bank of South Africa, the National Bank of India, and Barclay's Bank (Dominion, Colonial and Overseas) have branches at a number of places in the Territory. The Banque de Congo Belge and the Nederlandsche Handel-Maatschappij have branches at Dar es Salaam.

A few of the large importing and exporting houses deal directly with retailers and producers. For the most part, however, distribution to retailers is made through local wholesale traders, while the collection of produce from the primary producers passes through similar middlemen channels to the actual exporters.

In 1950 there was general relaxation of economic controls as supplies of all kinds became more plentiful, and a removal of price controls with the object of enabling the inhabitants to benefit from conditions of free competition. In view of possible restrictions of imports resulting from the course of world events and in the light of the continuing increase in living costs it has been considered desirable to call a halt in the progressive removal of controls. Price control has been maintained over a limited range of essential commodities and preparations made to extend it, should such a course be found necessary in the interests of the majority of the inhabitants of the Territory. Distribution control was maintained over maize, rice, sugar and jute bags and export control imposed to protect internal supplies. Some relaxation of import control was provided at the end of the year by the extension of an open general licence to a considerable number of imports. The Defence Regulations governing Import and Export Control, Exchange Control, Produce Control, and Price Control were replaced during the year by territorial Ordinances.

There were no significant changes in internal trade during the year. The basic economy of Tanganyika being so essentially agrarian in character it follows that the volume of internal trade is largely dependent on the productive capacity and purchasing power of the rural population. Favourable weather conditions together with increased acreage of land cultivated have resulted in the agricultural cultivator having more produce to dispose of at the higher prices ruling. There has, however, been a falling off in cattle sales which was due to the relative ease with which money could be obtained by the primary producers of most agricultural produce, and to some extent the inadequate supply of attractive consumers' goods.

Apart from such articles as are manufactured by the processing of local produce, Tanganyika's requirements of manufactured goods are met almost entirely by imports from overseas and the problem of distribution is therefore mainly that of transport from the ports of entry to the many trading centres scattered throughout the territory. The improvement of communications and transport is therefore a major factor in the development of internal trade.

During the year some 181 new companies, excluding companies unlimited or limited by guarantee, with a nominal capital of £18,065,000 were registered. A considerable increase over the 1950 figures of 122 companies with a nominal capital of £14,529,518.

External Trade (Including Inter-Territorial Trade)

The year 1951 witnessed a spectacular rise in the value of exports and a more modest rise in the value of imports. In consequence the visible balance of trade, which had been markedly adverse in 1948 and 1949 a period during which the O.F.C. made heavy imports, and was two million pounds adverse in 1950, became favourable to the extent of ten million pounds in 1951. (The exact figures for 1949-51 are given in the table following this section).

The interpretation of trade statistics earlier than 1949 requires some care because of changes in methods of classification and valuation since the Customs Departments of the three East African territories were amalgamated on 1st January, 1949. The set of tables in the Appendix show the main countries and commodity groups which entered into trade from 1949 and include the inter-territorial trade in the produce of Tanganyika, Kenya and Uganda.

Imports from Commonwealth countries as a group showed little change in value compared with 1950, but imports from foreign countries were worth fifty per cent more. Japan, Germany, Belgium, Italy recorded increases of 100 per cent and upward; the United States of America and Persia recorded sharp reductions. Total imports rose by some thirteen per cent.

Exports increased in value by over sixty per cent compared with 1950. Most countries participated in the increase, but particularly the United Kingdom, the United States of America and the Belgo-Luxemburg Union. A conspicuous exception was Japan with under £70,000 against £850,000.

In the classification of imports by commodity groups, it is noteworthy that textiles and clothing accounted for three million pounds more than in 1950 and machinery, apparatus and vehicles for one million pounds less. The corresponding classification of exports is dominated by sisal, which is included with raw cotton under the heading "Textiles, fibres, lint". Over thirteen million pounds of the increase of sixteen million pounds in the value of exports compared with 1950 appears under this heading. A further two million pounds increase appears under "Food products, beverages and tobacco" and one million pounds under "Fatty substances and waxes" (mainly castor seed, groundnuts and beeswax). The only sharp decline was in diamond exports, due to a dispute with the Diamond Corporation, which has been referred to in a previous section.

As may be seen from the foregoing remarks, the trends in international trade which made 1950 more favourable to Tanganyika than 1949 continued to operate just as strongly in 1951. The calculations necessary to establish index numbers for the quantum of trade in these years have not yet been done. It is likely they will show most of twenty million pounds improvement in two years in the visible balance of trade to have been due to the change in the terms of trade and only to a small extent to an expansion at a greater rate in the physical volume of exports as compared with the volume of imports.

EXTERNAL AND INTER-TERRITORIAL TRADE EXPORTS CLASSIFIED UNDER MAIN COMMODITY GROUPS

Commodity Group	Value		
	*1949	1950	1951
	£	£	£
Food products, beverages, tobacco	2,936,194	5,228,721	7,309,417
Fatty substances and waxes	751,324	943,124	1,943,246
Chemicals and allied products	17,518	23,010	27,605
Rubber and manufactures thereof	4,160	1,723	6,388
Wood and manufactures thereo	232,328	450,104	636,113
Hides, skins, leather	713,398	1,521,862	1,805,010
Textiles, fibres, lint	13,192,897	13,419,471	26,660,713
Clothing and miscellaneous textile goods	3,271	2,945	1,734
Non-metallic minerals and manufactures	72,454	88,472	149,340
Precious metals and stones	1,011,001	1,372,134	93,953
Base metals and manufactures	68,853	140,470	408,524
Machinery, apparatus, vehicles	7,882	2,322	3,262
Miscellaneous Commodities	515,942	580,576	613,812
Gold and Specie	624,923	889,853	831,290
Other items	3,550	5,152	3,697
Total ...	20,155,695	24,669,939	40,494,104

*In the absence of full details of the distribution of trade with Kenya and Uganda among the commodity groups, there is an element of approximation in the figures shown in this column.

EXTERNAL AND INTER-TERRITORIAL TRADE EXPORTS—COUNTRIES OF DESTINATION

Country of Destination	Value		
	1949	1950	1951
	£	£	£
United Kingdom	7,908,124	9,973,097	15,958,071
India	1,928,609	1,493,606	1,855,394
South Africa	1,000,789	1,262,070	1,278,426
Zanzibar	171,124	304,353	315,883
Australia	399,421	1,121,212	2,157,452
Canada	260,330	571,817	1,051,839
Ceylon	97,723	84,523	255,518
Eire	60,350	260,263	541,503
Kenya	780,795	731,017	903,847
Uganda	141,750	170,465	247,238
Other parts of British Commonwealth	191,694	360,730	820,651
Total Commonwealth ...	12,940,709	16,333,153	25,585,822
United States of America	2,584,862	2,208,256	7,014,439
Japan	1,390,917	850,667	69,621
Netherlands	588,828	910,525	1,619,285
Belgo-Luxemburg Union	273,314	680,571	2,431,402
Germany	801,456	1,530,543	1,534,313
Denmark	353,896	443,192	332,367
France	244,608	225,166	649,621
Italy	164,993	511,043	265,851
Norway	122,000	149,017	147,912
Sweden	132,086	206,636	252,464
Other Foreign Countries	542,460	615,695	783,681
Total Foreign Countries ...	7,199,420	8,331,311	15,100,956
Ships' Stores ...	15,566	5,475	7,326
Total Exports ...	20,155,695	24,669,939	40,494,104

EXTERNAL AND INTER-TERRITORIAL TRADE IMPORTS CLASSIFIED UNDER MAIN COMMODITY GROUPS

Commodity Group	Value in £'s		
	*1949	1950	1951
Food products, beverages, tobacco	3,579,746	4,394,157	4,250,032
Fatty substances and waxes	40,806	19,947	26,915
Chemical and allied products	743,271	809,070	1,148,184
Rubber and manufactures thereof	387,848	433,709	758,379
Wood and cork and manufactures thereof	298,754	153,973	190,422
Pulp, paper and manufactures...	292,330	242,967	351,203
Hides, skins, leather and manufactures	103,674	203,505	64,539
Textiles	5,652,949	4,569,080	6,667,019
Clothing and miscellaneous textile goods	1,249,335	1,072,160	1,938,950
Products for heating, lighting, power and lubricants	2,040,103	1,921,147	1,977,260
Non-metallic minerals and manufactures	1,198,403	1,411,918	1,870,645
Precious metals and stones and manufactures ...	6,728	10,461	14,446
Base metals and manufactures	3,649,390	3,704,188	4,039,844
Machinery, apparatus, appliances and vehicles ...	9,120,731	7,987,044	6,878,352
Miscellaneous commodities	959,288	888,396	1,239,665
Gold and Specie	1,316,740	170,429	8,276
All other items	184,825	289,565	218,377
Total ...	30,824,921	27,940,858	31,642,508

*In the absence of full details of the distribution of trade with Kenya and Uganda among the commodity groups, there is an element of approximation in the figures shown in this column. See also footnote to table giving countries of origin of imports.

EXTERNAL AND INTER-TERRITORIAL TRADE IMPORTS— COUNTRIES OF ORIGIN

Country of Origin	Value		
	1949	1950	1951
	£	£	£
United Kingdom	15,759,267	13,404,947	12,521,272
India	2,808,193	2,508,054	3,088,835
South Africa	565,957	962,657	1,102,399
Bahrein Islands	165,013	184,760	461,934
Hong Kong	307,868	144,949	189,124
Canada	212,012	77,840	169,010
Australia	134,077	85,948	76,954
Kenya	2,044,879	2,386,151	1,981,699
Uganda	1,203,932	1,555,026	1,642,955
Zanzibar	34,397	26,465	25,546
Other parts of British Commonwealth	166,366	88,397	477,949
Total Commonwealth ...	23,401,961	21,425,194	21,737,677
United States of America	2,128,999	1,528,127	1,001,425
Persia	1,267,085	1,121,722	636,676
Belgo-Luxemburg Union	235,919	121,725	857,562
France	114,662	219,298	453,828
Italy	625,599	522,183	1,023,969
Netherlands	494,320	501,717	753,141
Japan	1,647,349	1,226,846	2,850,918
Germany	91,846	279,265	818,962
Czechoslovakia	185,221	176,021	309,182
Sweden	158,032	300,841	492,556
Other Foreign Countries	473,928	517,919	706,612
Total Foreign Countries ...	7,422,960	6,515,664	9,904,831
Total Imports ...	30,824,921	27,940,858	31,642,508

NOTE.—The figures for 1949 are not strictly comparable with those for 1950 and 1951 due to changes in the treatment of transfers between East African territories of merchandise imported from outside East Africa. In 1950 and 1951, imports are shown net after deducting such transfers to Kenya or Uganda, while in 1949 gross imports are shown and transfers are added to re-exports. The value of such transfers in 1949 was £940,956.

VISIBLE BALANCE OF EXTERNAL AND INTER-TERRITORIAL TRADE

	*1949	1950	1951
	£	£	£
Domestic Exports	20,155,695	24,669,939	40,494,104
Re-Exports	550,879	1,286,135	1,003,367
Total ...	20,706,574	25,956,074	41,497,471
Net Imports	29,883,965	27,940,858	31,642,508
Balance ...	—9,177,391	— 1,984,784	+9,854,963

*In order to make the figures for 1949 comparable with those for 1950 and 1951, £940,956 has been deducted from the published figures of Imports and Re-exports, this being the value of merchandise imported into Tanganyika from outside East Africa and transferred to Kenya or Uganda in 1949.

APPENDIX I

DEVELOPMENT PLAN SCHEMES

PROGRESS REPORT

Training of Agricultural Instructors, Ukiriguru.—Fifty-seven students, of whom nineteen obtained First Class Certificates, completed their two years' training in June, while sixty-one students completed their first year's training and after four months field work returned to start their second year's course in November. A new section composed of mission teachers who find their own accommodation locally and attend the training centre daily was started as an experiment. It was noticeable that entrants showed greater keenness and readiness to undertake practical work than was the case in previous years.

The building programme is now almost complete and the new facilities have greatly increased the efficiency of the establishment. Approximately half of the intended number of new text books for student use have now been drafted by members of the staff and await translation and printing.

Agricultural Training for Indians.—The Indian School of Agriculture opened in 1951 with thirty students, ten of whom came from Kenya and twenty from Tanganyika. Particular emphasis during the two-year course is given to practical work and it is hoped that with additional land and equipment more comprehensive practical instruction can be given.

Improvement of Supplies of Planting Materials.—Further information has been gained regarding suitable blight-resistant potatoes for growing in Tanganyika. While further trial is necessary with several varieties, at present the most promising is that known as "1521c(3)" which has proved completely resistant to existing strains of *phythophthora infestans* under conditions highly inducive to infection, moderately high yielding, and palatable.

Development of Tobacco Industry.—The two tobacco officers were stationed in Biharamulo (Lake Province) and Mgwina (Southern Province), and African Instructors were employed on the Mahenge plateau and in the Western Province.

At Mahenge one and a half acres of tobacco were grown and fire-cured, yielding at the rate of 375 kg. per acre, with a high proportion of Grade I leaf. Gross receipts were at the rate of over Shs. 2,000/- per acre. At Mgwina both Turkish and Virginia tobacco were grown but owing to Angular Lead Sport disease the harvest was small. It is hoped to increase the yield and improve the quality next year so as to produce substantial samples for trial shipment to manufacturers.

The Agricultural Department's activities in developing the industry have continued to be concerned with improving quality rather than merely expanding production.

Improvement of the Copra Industry.—Advisory work in the coconut growing areas continued, grove sanitation and better copra production being the main lines of work. Surveys of land suitable for new plantations have been carried out and others are in progress. Development funds assisted the Agricultural Department in its work of establishing nurseries for the production of palms from selected seed.

Extension of Ukiriguru Experimental Station.—The building programme has been practically completed although the difficulty in obtaining necessary materials has delayed the installation of electricity and water.

Bukoba Coffee Sub-Station.—The main buildings were completed in April, and labour lines and cattle sheds are under construction. Thirty-three head of cattle were dispatched to the Station for fertilizer experiments but losses in transit were heavy owing to their passage through fly country. An additional 100 head of cattle will be sent. Experimental work is in its preliminary stages and it is too early for any definite conclusions to be drawn.

Soil Conservation, East Kilimanjaro.—Work has progressed more successfully this year and the hill slopes are being contoured to protect them from erosion. Six elephant grass nurseries have been set up to provide planting material for the contour banks and for planting on eroded slopes and gullies which has gained considerable local support.

Cotton Experimental Station, Ilonga.—The ginnery building was completed during 1951 and foundations for the gins and engine were constructed. The forty-saw gin was received. One hundred acres of cotton were planted for stock and for the early stages of bulking very satisfactory yields were obtained, the better types giving 1,000 lb. of seed-cotton per acre and maintaining their quality.

Dusting and spraying trials were carried out and a definite degree of control of both American Bollworm and Stainer was obtained.

Development of Tumbi and Mwanhala Experimental Stations—Tumbi.—The multiplication of vermin-resistant "liongo" cassava and the establishment of a collection of cassava varieties has continued with the object of eventual distribution of mosaic-free, vermin-resistant planting material. Fertilizer trials to test the effect of silicophosphate are nearing completion. The possibility of realigning the station's paddy bunding to permit ox or tractor cultivation was investigated.

Mwanhala.—Trials of short-term sorghums were carried out and will be continued with additional varieties in the coming season. Seed of bambarra nut for which there is a keen demand was distributed.

Development of Rice Production: Southern Province.—A number of experiments were carried out during the year to test the effectiveness of artificial and natural fertilizers, a number of selective weedkillers, the comparative yield of irrigated and rain-grown rice, and of different strains of rice. Eight tons of high quality paddy was available for distribution as seed.

In addition to rice, ten tons of improved maize seed was distributed and improved varieties of cassava and simsim obtained for multiplication and subsequent distribution.

Improvement of Beeswax.—An intensive campaign is being waged to stop the annual destruction of bee colonies, which is the primary cause of present low beeswax and honey production compared with the considerable potential of the territory. This is a campaign that will have to continue over a number of years to be fully effective.

Propaganda and education regarding better bee-keeping and the production of clearer beeswax are being undertaken and African instructors are being trained. In addition posters and leaflets are being distributed and participation in agricultural shows has evoked considerable interest in the packing of honey for both export and internal sale.

Work has recently commenced on the construction of the main buildings for the Beeswax Research Station at Tabora, and completion is anticipated early in 1952.

Fisheries (Inland)—Fish Farming.—Twenty-three ponds, for breeding fry and the production of marketable fish were in use during the year. Seven African instructors received training and propaganda and publicity work with the public was undertaken. A number of experiments with different species of "tilapia" were carried out, and the effects of growing rice in the ponds, supplementary feeding of the fish and their anti-malarial value were studied.

Lakes and Rivers.—A 45-foot motor fishing vessel has now been obtained and a large programme of investigation and fishing experiments in Lake Tanganyika will be undertaken in 1952.

Several small aquarium tanks have been installed at the Kigoma office for the study of the habits of Lake Tanganyika fishes of economic importance. Experiments are in progress with acetylene flares designed to find a cheap and reliable substitute for the costly wood-fuel at present used in the native "dagaa" fishery which produces about 1,500 tons of dried fish a year for export. Investigations continue on the fish and fisheries of the Malagarasi River and swamps and the presence of abundant stocks of fish including "tilapia" awaiting exploitation has been confirmed.

In September an investigation of Lake Rukwa, which had been closed to fishing since the disastrous drought of 1949, was carried out. The fish stocks were found to be sufficiently recovered to permit a resumption of fishing under the control of the Lake Rukwa Fisheries Board, established under the Fisheries Ordinance, which became law in October, 1951. This Ordinance is of great importance in helping to ensure the orderly and controlled development of Tanganyika's inland fisheries.

In addition to the investigational and experimental work carried out, the Kigoma office provides information, advice and assistance throughout the territory in connection with fishery matters, including the identification of fish, obtaining fishing gear, etc.

Fisheries (Marine).—A Fisheries Officer arrived on first appointment in August and the remainder of the year was taken up with preliminary measures and investigations necessary to ensure that a comprehensive programme of work can be undertaken in 1952 in connection with the possible development of commercial fisheries and the improvement and development of native fisheries.

Development of Ufipa District.—High yielding seed maize, sunflower seed, and clucks of a Rhode Island Red-native cross have been produced and distributed to the local inhabitants. Investigations are in progress which it is hoped will lead to higher yields in the first year of the indigenous system of mound cultivation. Experiments are being made to examine the possiblity of cultivating swamp land during the dry season.

Kahama Agricultural Development Centre.—The Station has been engaged in the multiplication and issue to African cultivators of vermin-resistant cassava planting material and seed of the soil improving leguminous crops, pigeon pea and chick pea.

Masai Development Plan.—The Masai share of the financing of the scheme was established in February by agreement to a local rate of Shs. 30/- per tax-payer, of which Shs. 25/- is treated as a contribution to the plan.

Improved water supplies are one of the major objectives. Nine small dams were built in 1951, of an average capacity of 400,000 gallons. One larger dam was completed and another was under construction. Bore-holes and pipe lines have also been installed and considerable progress made to surveys for dam sites and further bore holes.

Arrangements were made for clearing 4,000 acres of tsetse-fly bush by contract, but shortage of tractors proved a delaying factor. Used machines from the O.F.C. have now been bought and are being reconditioned.

Some experimental late hay-making was done in the Kissongo Pilot Scheme area and a full programme has been planned for 1952, using mechanical equipment for hay-making and baling.

Agriculture and Natural Resources School, Tengeru.—Plans were drawn up during the year for this large project and key staff was selected.

The planning of the buildings required for this project is now in progress and the construction of European accommodation has been started, but it is not anticipated that construction will be in full swing until 1952.

Food Production Farms.—A start was made on a Government food farm at Kilangali in the Eastern Province, where mechanical methods of irrigated rice production are employed. Virgin land is ploughed twice and two heavy discings have been necessary prior to seeding. At the end of the year, the experimental side of the work was still in progress including gauging and control of the flow from the Nyomko River, digging of profile pits and the making of soil analyses, and the planting and cropping of a small area of some thirty acres.

Biharamulo Development Plan.—Planning for this scheme continued during 1951 and a special investigation by a water engineer has led to approval being given to a programme of well sinking and lining of existing wells.

Southern Province Development Plan.—The stimulation of small-holding agricultural production and the opening up of communications in the Southern Province form the basis of this scheme. The agricultural staff was increased and a special tsetse survey officer was engaged. Minor road work was also expanded. Provisional export tonnage figures for the year showed an encouraging rise of some forty per cent over those for 1950. The total exports from Lindi, Mtwara and Mikindani were about 37,200 tons in 1950 and 51,900 tons in 1951. Not all the increase was due to primary production but the final figures, when analyzed, will show a substantial improvement in production.

Central Breeding Station, Mpwapwa.—Further construction and fencing work was undertaken and the water supply extended and improved. Crops were on the whole good and the hay was of excellent quality.

Pigs have done well and work on the improvement of cattle strains continues. It has been found that on the whole sheep do not do well in this area. The poultry unit produced some 45,000 eggs which represents a monthly averaeg of twelve eggs per bird. Four hundred and forty birds and 621 day-old chicks were sold. Incubation results have been quite satisfactory and improved methods are being tried out to reduce losses still further.

Development of Ghee Industry: Lake Province.—As a result of propaganda, instruction, and strict supervision, the proportion of clarified butter to the total production of ghee has increased spectacularly from 0·7 per cent in 1948 to 6·0 per cent in 1949, 13 per cent in 1950 and 30 per cent in 1951.

Northern Province Demonstration and Experimental Farm.—Good progress during the year can be reported on most aspects of the farm's activities although for various reasons building work has been regrettably delayed. An extensive programme of fencing has been completed and work on the construction of a piped water supply designed to provide 240,000 gallons a day is well advanced.

Cattle have done remarkably well thoughout the year—calving rates were high and mortality low. The pig population was kept low, merely selecting and maintaining a good nucleus herd. Mortality among the Karakul sheep was comparatively high but lambing rates were good. Poultry stocks have improved slowly in quantity and quality during the year.

African Veterinary Training Centre.—Six students out of nine passed their final examination in 1951. The course has now been extended to two years and twelve students are now studying. Practical work is done in the morning and lectures are given in the afternoon. In July and August the students were taken to Masailand to work in the contagious bovine pleuro-pneumonia campaign. It is hoped to make a month of field work for the students a regular annual feature of their course.

Iringa Stud Farm.—During the past year the emphasis has been on feeding rather than on the improved breeding of livestock. Apart from disease control, feeding is the most important factor in livestock management in Tanganyika. It has been shown at this farm during the last year that considerable improvement can be brought about in the average existing native herd through good feeding alone. By the conservation of fodder crops such as hay and silage and by growing napier grasses and kale on irrigable land cattle can be carried through the long dry season without loss of condition.

Demonstration Farm, East Kilimanjaro.—Cattle and pigs did well during the year but it was decided that conditions were not suitable for sheep and the ones remaining were sent to the Northern Province Stock Farm. Sufficient cereals have been harvested for the feeding of labour and livestock during the coming year.

Veterinary Centres.—A new centre has been opened at Ndoro in the Western Province and the African Veterinary Assistant has been engaged in propaganda and minor treatment of local stock. Towards the end of the year a bull was purchased.

The centre is popular and is definitely serving its purpose of bringing simple veterinary science to the local African stock-owners.

Pasture Research.—One aspect of research in 1951 was the comparative value of burning as against selective uprooting and ring-barking of trees. Areas cleared by the latter method showed a larger increase in grass cover. The problem of regeneration of woody plants is receiving careful study.

The seed nursery plots have provided material for dispatch as samples to Southern Rhodesia, Australia, Pakistan and other countries.

In the cleared areas at the Tumbi pasture research station there has been a striking decrease in tsetse fly numbers. Fly catchings decreased continuously, the greatest contrast being between the months of March, 1950 and March, 1951, the respective figures being 927 and 5.

The two Pasture Research officers have toured the territory to investigate different pasture types and to advise on pasture problems.

Pilot Ranching Scheme: Mkata Plains.—As a result of a further year's experience it has been proved that the holding and breeding of cattle on the Mkata Plains is a practicable and profitable proposition provided adequate disease and tsetse control can be maintained. Effective control measures exist and can be carried out economically.

Ulugurn Land Usage Scheme.—Good progress has been made and the area being dealt with has been expanded fourfold. Attention during the year has been mainly directed towards terracing and reafforestation. During the year ten ex-enemy properties have reverted to African use and are being used as resettlement areas; mechanical cultivation is being practised with success. A start has been made in the construction of fish ponds.

Ulanga Rural Development Scheme.—It has been decided that from the beginning of 1952 the animal husbandry, educational, and medical aspects of this scheme should be handed over to the control of the appropriate department or native authority.

Usambara Scheme.—Progress during 1951 has been relatively slow because of the need of winning the peoples' confidence in the value of the measures proposed. The success of the scheme must ultimately depend on the measure of popular support and co-operation it receives.

Considerable progress was, however, made with ridging the cultivation areas, as the increased crops from areas previously ridged have convinced people of its value. Elephant grass plantations have been established but the stall feeding of livestock is only making very slow progress. A start was made in she implementation of the forestry working plan to provide reafforestation of tteep slopes and the increase of firewood and building poles.

Work in the plains has mostly been of an exploratory and experimental nature. It has been accepted that the provision of expansion areas in the plains is an integral part of the scheme and the best means of settling people in these areas is being examined. Mechanical cultivation, agricultural trials, irrigation and drainage are aspects of the problem that are receiving attention, in addition to the general factors such as the provision of adequate medical facilities, communications, etc.

Development of Sukumaland.—The new offices at Malya and the stock farm house were completed and a temporary quarter started.

The crop yield on the stock farm was only moderate owing to heavy rains but the livestock remained in excellent condition and milk yields steadily increased to an average of 5·8 gallons per head.

Pilot land usage areas have been chosen in each district and area councils set up. These have been surprisingly successful in their work of limiting stock to suit the carrying capacity of the land. The Federal Council of Sukumaland has accepted the necessity for stock limitation by culling and has agreed to five per cent reduction.

Settlement control has been obtained in Geita District and settlement lines have been established from Mwingero to Buhindi. Behind these lines orderly settlement is progressing at a density calculated to stamp out the tsetse-fly and so remove the danger of sleeping sickness. The cutting of drainage line vegetation has been successful in effecting an almost complete elimination of fly in that part of the Bechosa chiefdom. The application of the Settlement and Stock Limitation Rules to the whole of Sukumaland has been formally made but their implementation has been confined to one pilot area in each district. Considerable success has been obtained in these initial stages. A number of surveys and settlement plans have been completed and others are in progress.

The two experimental fish ponds produced fish at the rate of 590 lb. and 774 lb. per acre per year.

One dam was completed and another three-quarters finished with the heavy earth moving equipment—mechanical breakdowns and the unusually heavy rains slowed down progress. Twenty-nine hand-built dams were completed and three half-finished in the year.

Construction has begun of the ferry pontoon at the south end of Smith Sound. This should not only encourage settlers but will also help to open up the area to trade and development.

Development of Mbulu.—The year 1951 was the fourth year of the five-year plan and the initial years of spade-work and the satisfactory progress recorded in 1950 laid the foundation for full scale operations to be pursued simultaneously for the first time in 1951 on every aspect of the plan. Results have been satisfactory throughout and have in some respects exceeded expectations. A further cause for satisfaction is the increasing co-operation of the people concerned and support of the native authorities.

A successful full-scale destocking programme throughout Iraqw was undertaken. Previous to the plan an average of some 8,000 cattle and donkeys and 3,000 sheep and goats were sold a year—in 1951 the respective figures were 21,500 and 34,000. The reduction in stock numbers has already had an extremely beneficial effect on the grass and pasturage.

Further considerable progress was made with the ambitious programme to clear 600 square miles from tsetse by the end of 1952 so as to provide expansion areas and 324,460 man-days were employed on this work in 1951.

The Kitete pipe-line was completed and a 23-foot high masonry wall constructed in the gorge of the Simba River from which a four and a half mile pipe-line carried water to the Merewa country. The Muchlur artificial lake with a surface area of one square mile created in 1950 by the construction

of a four and a half mile furrow to divert flood water from the Yaida River has continued to prove successful. It is proposed to direct by pipe-line in the dry weather some of the water of this lake into the course of the Mavetadu River, which flows only in the rains and which will serve as the principal water supply of the South Iraqw-Western Barabaig expansion area.

With the gradual disappearance of tsetse and with the provision of adequate water supplies, the rate of resettlement accelerates and some 730 families settled in the expansion areas during the year.

Agriculturally one of the most important developments during the year was the introduction of the system of land rehabilitation practised in the Kigezi District of Uganda, which is contour strip cropping, supplemented by trash bunds between the strips, which in turn are supported by live hedges, if necessary, on slopes above ten per cent. By these means it is proposed to form terraces by natural wash on hill-side fields. The first demonstrations have been successful and the new policy has gained the approval of the native authority.

The new policy for the reafforestation of the denuded highlands is to encourage individually-owned plantations as opposed to communal plantations, although the latter will still continue to be planted where special needs arise.

Kolo Rehabilitation Scheme.—A detailed survey of sixteen square miles of the Kolo area has provided valuable data of general use in tackling the problem of over-stocking and misuse of the soil in the Irangi highlands. A reconnaissance survey of a potential expansion area was also undertaken.

Rungwe Small-holdings Scheme.—This small scheme which is conducted with the ready assistance of the Moravian Mission near Tukuyu made steady progress. The intention is to establish thirty small-holdings, each of about fifteen acres. A tractor and implements were provided during the year, which are already improving progress.

Survey of the Pangani Basin.—This is a proposal to utilize part of the waters of the Pangani River for irrigation and to make up the basic flow at Pangani Falls power station by seasonal storage. A reconnaissance survey was carried out by Sir William Halcrow and Partners, and more detailed field investigation was undertaken later in the year. The final report from the Consultants is expected in June, 1952.

Construction of Dams for the Development of Rice Production.—Two dams were constructed in the Kahama District of the Western Province and repairs and improvements made to existing dams in that district and in the Tabora and Nzega districts. The use of mechanized equipment is now under consideration.

The dams are making a significant contribution towards the expansion of rice production and in addition, now that some are stocked with fish, are providing a valuable addition to the local diet.

Reorganization of Bukoba Native Coffiee Industry.—Funds provided for this purpose are being used to assist in the erection of zonal hulleries. Two hulleries were almost completed at the end of 1951 and six more were in various stages of construction.

Local Development Loan Fund.—In 1951 loans ranging from £15 to £500 were made to indigenous cultivators to enable them to increase their agricultural productivity—the money was used, among other things, to purchase oxen for ploughing, to buy ploughs or improved seed, to construct dams for irrigation and other purposes, and to pay labour employed on extending the area under cultivation.

The loans carry a low rate of interest (normally two and a half per cent) and are for periods averaging two to three years. Some larger projects are now under consideration and applications may also be approved for funds to hire mechanical ploughing equipment. Loans can be made either to individuals or to native treasuries in cases involving co-operative effort. The work undertaken has been based on the advice given by the Agricultural Department, but the cultivator himself provides the original initiative and enthusiasm, to encourage which is one of the main purposes of these loans. The Provincial Administration and the Agricultural Department also watch progress made and give advice when needed. The consistent repayment of interest and capital indicates that the great majority of these loans are put to good purpose.

Development of Water Supplies.—The work of the Department again increased in 1951. In addition to routine investigations, construction work, water boring, etc., technical assistance has been provided to other Departments, mainly on irrigation, small dam construction, etc.—in particular, the Kilangali scheme of the Agricultural Department for food production, might be mentioned. Similar work has been undertaken in co-operation with Consulting Engineers from the United Kingdom who are engaged on advising Government on certain schemes; for instance, Sir William Halcrow and Partners on the Pangani River Basin Scheme and Sir Claude Inglis, who came out to survey the Kilosa River flood problems.

Water Supplies.—Supplies have been piped from impounded sources involving the building of dams at Kahama, Kazima (Tabora), Handeni and Nyalikungu, whilst water has been diverted and piped from springs, streams or bore-holes in some sixteen areas.

Schemes have been started at Chiona, Olkokola (an extension), the Bwiru Schools and Newala, the latter being a scheme of considerable magnitude requiring three-stage pumping to the top of the Makonde Plateau, and dams at Koko, Muheza and Mpipiti are nearing completion.

In addition, considerable earth works were constructed for the Kilosa River diversion channel, and a sub-surface type of dam has been completed near Shinyanga, while at Lianziwa in the Pawaga area, a small dam has been built by hand labour. A fourth earth-moving team is on order to supplement the above equipment, and an additional team has also been ordered for development in Sukumaland to add to the small plant already there.

Bore-holes.—Drilling has been carried out at fifty-three different sites throughout the territory. These may be sub-divided as: twenty successful, one salinity too high, four no water obtained, eight abandoned for technical reasons, thirteen experimental drilling, seven drilling still incomplete. It will be noted that experimental drilling has been done on a considerable scale and this has been mainly for the investigation of a proposed large dam site at Tungi near Morogoro.

Wells and Shallow Banka Drilling.—Thirty-two wells have been sunk, mainly in the Central and Southern Highlands Provinces, the total footage being 945. In addition 2,100 feet of Banka drilling have been completed at various proposed bridge sites on the route of the Great North Road to assist the Public Works Department.

Hydrology.—The Engineer-Hydrologist's section has carried on with the very important work of gauging and recording. During the latter part of the year attention was concentrated on Masailand in preparation for the Masailand Development Scheme.

Soil Conservation.—The demands for assistance in establishing proper land use and soil conservation measures both on native and alienated lands show an encouraging and steady increase, and the work on hand and projected will keep staff and equipment fully occupied for the next two years.

One of the main demands has been for the construction of terraces, diversion ditches, dams, etc., which has resulted from the demonstration value of these on farms treated during the last two years. Such mechanical treatment is often very necessary but it is only a beginning in tackling the problem of complete conservation. Much remains to be done to obtain full use of supporting practices such as the adoption of balanced systems of farming, better farm planning, and a number of other practices which, when applied together, give a completely protected and productive land unit.

The establishment of the Soil Conservation service was brought to full strength during the year, and this, coupled with greater experience, has enabled a considerably greater amount of work to be undertaken. In addition to the actual soil conservation work, a large programme of research and demonstration was initiated as well as increased provision for training.

ROADS

Great North Road.—Detailed surveys are now in hand for the realignment and construction or reconstruction of the necessary bridges on this road. Negotiations are going on with the Crown Agents for the design and placing of orders for the necessary long span steel bridges. Designs have been completed for a reinforced concrete bridge for the Halali River.

Namanga-Arusha-Moshi-Himo Road.—Considerable progress was made on this road of 120 miles which will be a first class bituminized road and the section from Namanga to Arusha was practically completed while work on the remaining sections was well advanced.

Tanga-Korogwe Road.—By the end of the year surveys were completed and tenders for construction called. It is expected that work on this road will start early in 1952.

Dar es Salaam-Morogoro Road.—Work on the construction of this road some 120 miles in length, has been started, and it is expected to take another two years to complete. This road will also be up to first class bituminized standard.

Morogoro-Iringa Road.—The road has been surveyed and preliminary work has already started. It will be of high standard stabilized gravel. Construction is being done by the Public Works Department.

Other Major Roads—Dar es Salaam Area.—The Bagamoyo road is completed as far as the Packers' factory and two coats of bitumen surface dressing on this stretch were ninety per cent completed by the end of the year. The extension to Kunduchi to a gravel standard is eighty-five per cent complete while the Mbezi bridge although not open to traffic will be complete.

The straightening and regrading of the Kilwa road from the Municipality boundary to the south side of the Mzinga creek including two twenty-foot span reinforced concrete bridges has been opened to traffic.

The 1951 programme of work assisting the Dar es Salaam Municipality will be nearly complete at the end of the year. This includes new roads in the Inoffensive Factory area, the Changombe housing estate, the Kinondoni Housing estate and the Bulk Oil Stores access road.

Lindi-Nanganga Road.—The final survey for the section from Lindi to Mtama is complete and staking out is being kept well in advance of any work being done. Reconnaissance survey has been taken as far as Nanganga. Road Construction Unit No. 1 is being assembled as fast as machines can be obtained from the Overseas Food Corporation. Work has been put in hand with what machinery is available and considerable progress has been made on the first three miles of the road which lies in very broken country.

Surveys:

1. The final location of the road diversion round the Luichi Swamp on the Kigoma-Kasulu road has been completed.

2. The reconnaissance survey for a ferry site across the river Mara in the Lake Province and the necessary approach roads which will amount probably to some fifty miles have been completed; the final survey is now being put in hand.

3. A suitable bridge site for crossing the Simiyu River, Lake Province, has been found and a survey is in progress for the necessary road diversion to carry the road over this bridge.

4. Reconnaissance survey between Utege and the Mara mine has been completed and referred to the Provincial Commissioner, Lake Province, for comment as two alternatives are possible.

5. Roads to the Tobacco area, Southern Province:

(a) The reconnaissance Luegu-Mgwina has been completed from which a programme of improvements can be worked out.

(b) A new road alignment has been found and surveyed between Jumbe Salim and Mbwino. Staking out is now proceeding.

(c) A reconnaissance is being made of a possible direct road between Songea and Mgwina to enable the District Commissioner to open up the road if necessary on a suitable line.

6. Lindi-Songea road, Lumesule Juu—preliminary reconnaissance completed—final survey in hand.

7. Songea-Ngaka-Njombe. The preliminary reconnaissance has just been put in hand.

8. Masasi-Liwale-Mtwara. The reconnaissance survey for general improvements on the line of this road is complete and final surveys are now in hand for a new road up the Newala escarpment and to Nanguruwe on the Mtwara aerodrome road.

9. Instructions have been issued for a reconnaissance from Nanguruwe to explore the possibility of a diversion of the present Mtwara-Mikindani-Lindi road from the low-lying broken country it now traverses to the high ground in the region of Nanguruwe.

AERODROMES

Dar es Salaam.—Progress in 1951 was retarded by the very heavy rains which occurred towards the end of the year.

Mtwara.—The road of access has been cleared and built to the proposed Mtwara aerodrome site. Plans and specifications have been completed, the work was in hand departmentally on the construction of the main runway.

Tanga.—Work on the terminal buildings was well advanced. The contract for the reconstruction of the main runway has been let to the Mowlem Construction Company who were going ahead as fast as the inclemencies of the weather permit.

Mbeya.—The main terminal building was completed by the end of the year leaving only the ancillary works to be built in 1952. As no contractor was found to undertake the reconstruction and extension of the runway this was put in hand departmentally and was about sixty per cent complete at the end of the year.

Mwanza.—Plans and specifications are complete: the site has been obtained and cleared of inhabitants, but no contractor has yet been found for the work. It may be necessary to organize this on a departmental basis.

Kigoma.—Work on the construction of a new aerodrome has been delayed due to the heavy rains, but should be complete within the first month or six weeks of the new year. The terminal building was well advanced.

Mafia.—The extension and reconstruction of this aerodrome was put in hand departmentally during September of this year. The earth works are some seventy per cent complete and the hauling of surfacing on to the runway is in hand. This, however, will be a very slow business owing to the lack of available transport. The terminal building has been started and was some thirty per cent complete by the end of the year.

Kilwa.—Plans and specifications for this work have been completed.

Oldeani.—The preparation of a landing strip near Oldeani has been taken in hand by the District Commissioner.

Moshi.—The terminal building was about eighty per cent complete at the end of the year.

Lindi.—The new terminal building was completed at the end of the year while the necessary garage for fire-fighting equipment has been built.

Mombo.—The aerodrome and buildings were completed early during the year.

Kibongoto T.B. Hospital.—The construction of the administrative block has been completed and it is anticipated that the five wards will also be completed before the end of the year. The staff quarters have been completed and construction is now in progress on the communal kitchens and the Princess Elizabeth Memorial Workshop, but these works, together with the ancillary works, will not be completed until 1952. This project has involved considerable terracing work because of the nature of the site.

Rungwe Health Centre.—It has not been possible to proceed with this project other than in respect of the preparation of type hospital plans, which are being prepared for general use throughout the Territory. The main buildings intended consist of an administrative block and out-patients' department, two double-ward block of fifty-two beds each, an operating theatre, isolation block, laundry and kitchen block, Sisters' duty room and sewing room, and various ancillary buildings such as mortuary, sanitation blocks, and staff quarters.

Group Hospital, Dar es Salaam.—No progress pending the arrival of the architect for this project who is due in Dar es Salaam in January, 1952. The site for this major work has been selected and site offices are now under construction for the accommodation of the planning and designing staff.

Korogwe Hospital.—The construction of the Medical Officer's quarter has been completed and is now occupied by the officer responsible for the construction. Work is in progress on the Assistant Medical Officer's quarter and accommodation for the subordinate staff. Construction of the main hospital buildings is also well advanced and it is anticipated that the project will be completed by approximately mid-1952. The total estimated cost of the hospital buildings is £42,000, in addition to which there will be an expenditure of approximately £10,000 in respect of staff quarters.

Maternity Wing, Dar es Salaam Hospital.—The actual construction of the new building has been delayed due to changes in the siting, but work is now in progress by contract at an estimated cost of £18,500, but completion is not expected until late 1952.

Nzega Hospital.—This scheme consists of an administrative block and out-patients' department, laundry and kitchen block, four 26-bed wards, two 12-bed wards, an operating theatre, isolation block and ancillary buildings such as mortuary, garages, etc.

Work is now in progress on the construction of the isolation ward and two 26-bed wards, and it is anticipated that construction will continue during 1952.

Iringa Hospital.—Work is in progress on the construction of an out-patients' and African and Asian wards as extensions to the existing hospital, and the work was about seventy-five per cent completed by the end of the year.

EDUCATION

Teachers' Training Centre, Butimba.—The construction of one European quarter has been completed and the building is occupied by the officer in charge of the construction, whilst a second European quarter was completed by the end of the year. Work is well advanced on the classroom blocks, stores, and dormitory blocks, but this project will not be completed until late in 1952.

Tabora Senior Secondary Boys' and Girls' Schools—Boys' School.—Works of extension to the main school have been in progress during the last three years and during 1951 the construction of a new Biological Laboratory was in progress at an estimated cost of £2,800, and the work has been completed.

Girls' School.—The work of extending this school has also been in progress intermittently for some years and during 1951 a new domestic science block was constructed at an estimated cost of £3,000.

Further works are intended including two laboratories, eleven dormitories, and a new dining room and kitchen, together with ancillary buildings such as a model house and extensions to storage accommodation, latrines, etc.

Primary Schools.—The construction of a Government Town School at Mwanza has been completed at a cost of nearly £7,000, whilst the construction of a Primary School at Kilwa Masoko is in progress. This will not be completed until next year.

African Girls' Schools, Machame and Mbeya.—Machame.—The construction of the main project was completed during 1949/50, but the construction of additional staff quarters consisting of a semi-detached block, was undertaken during the year and completed at a cost of £2,100.

Mbeya—This project has been in progress during the last two years and the work undertaken during 1951 was the construction of four additional dormitories, one sick bay, a general science room, and a model house, together with ancillary buildings such as lavatories, etc.

TOWNSHIP DEVELOPMENT

Dar es Salaam.—The temporary pumping plant and sedimentation tanks have continued in use, as necessary, to make up the town's demand. Delivery of the permanent pumps and other machinery has, as was expected, been delayed. An electric power supply has been provided at the temporary race water pumping station.

The final connections have been made to the two million-gallon clear water reservoir which is now being filled preparatory to being put into service. Building work on the filter house has been completed. Installation of the filter equipment awaits the arrival of the Candy Filter Company's erector. Building work on the raw water and distribution pumping stations is nearing completion. The gravity main from Yomboni Creek is nearing completion. Work has not yet started on the under drainage system. The leading distribution mains in the Pugu Road have been laid and work is now in hand on the main from Gerezani to Oyster Bay and Observation Hill. This work is being done departmentally.

Good progress has been made on laying the main sewers in the area between the European Hospital and the Post Office.

Mtwara.—Construction of the pump house has been completed. The air-lift pumps have been installed and a limited supply of water has been made available in Mtwara by the use of a temporary high lift pump. The engines for the permanent high lift pumps have been installed and the pumps themselves are in transit from England.

Other Townships and Outstations.—Construction on new water supplies is in hand at Lindi, Kilwa Masoko, Lushoto, Shinyanga, Mbeya, Tukuyu and Songea.

Orders have been placed with the Crown Agents for a new filtration plant a 240,000-gallon steel plate tank, high and low lift pumps and an 8-inch diameter rising main for Iringa and for a 6-inch diameter steel main for Arusha.

Extensions and improvements to existing distribution systems were made at Lindi, Tanga, Arusha, Moshi, Morogoro, Iringa, Mbeya, Tabora and Mwanza. Investigations and planning for new works have been undertaken for Arusha, Moshi, Tabora, Mwanza, Bukoba, Kigoma and Mbeya Aerodrome.

A preliminary report on a new water supply for Tanga has been received from the Consulting Engineers who have been authorized to make arrangements for the sinking of six bore-holes. A new and additional elevated storage tank for this town has arrived.

A preliminary report on a new sewerage scheme for Tanga was received from the Consulting Engineers but owing to the high cost, Government has decided not to proceed with the scheme in the meantime.

PUBLIC BUILDINGS AND WORKS

Workshops and Depots.—The construction of new workshops and depots for the Public Works Department has been in progress during the last three years and the works have now been virtually completed at Mbeya, Iringa, Dar es Salaam, Lindi, Dodoma, Tabora, Arusha and Moshi. Work is well advanced at Morogoro and Mwanza and has recently been started at Tanga and Mtwara. The average cost of the construction of a new depot on a major station is £15,000.

Government Stores.—The provision of Government Stores accommodation to replace the services rendered by the Railway Stores Organization, has been planned during the last eighteen months and the construction of the main Stores Depot at Dar es Salaam was completed by the end of the year at a cost in the region of £70,000. Subsidiary Stores have been authorized for Tanga and Mtwara and the work in Tanga is now in progress, but is not expected to be completed until the second quarter of 1952. The estimated cost will be in the region of £26,000. The smaller Stores at Mtwara are now being planned and it is anticipated that construction will start early in 1952, which will provide minimum Stores accommodation for the time being which will be developed as the needs of the Southern Province demand.

Medical Stores.—The construction of a new Medical Stores in Dar es Salaam is also in progress at an estimated cost in the region of £45,000. The work is well advanced and is expected to be completed in 1952.

European Housing.—The construction of 239 units of Senior Service accommodation was authorized during the year throughout the Territory, but construction in many stations has been held up due to insufficiency of artisan and other labour, and shortages of essential building materials. It is anticipated that the following units will have been completed by the end of the year:—

Dar es Salaam	23
Eastern Province	17
Tanga Province	1
Western Province	8
Lake Province	10
Central Province	29
Southern Province	2
Southern Highlands Province	36
Northern Province	22

It should be appreciated that some of the quarters completed during the year will be from the 1950 authorized programme and the construction authorized in 1951 will continue to completion during 1952.

Asian Housing.—One hundred and eighty-two units of accommodation were authorized for construction during the year at various stations in the Territory. Including works authorized in 1950 and continued in 1951, 123 units were completed in Dar es Salaam and forty-eight at upcountry stations by the end of the year.

The construction of Asian accommodation has also been arranged on behalf of the East African Posts and Telegraphs Department at Dar es Salaam and upcountry stations.

Office Accommodation.—This provision includes for the construction of new Bomas and ancillary offices throughout the Territory. The plans for standard type Boma have been under review during the year. Construction of a new Boma at Ngara is now in progress and plans have been completed for similar construction at Kilosa and Kibondo, but the actual work will not be commenced until early 1952.

Minor additional office accommodation has been provided during the year at Morogoro, Mbeya, Iringa and Moshi.

Cereal Storage.—The provision of Cereal Storage Depots at various stations in the Territory has been in progress during the last three years and the main depots have been completed at Dar es Salaam, Kilosa, Morogoro, Dodoma, Tabora, Korogwe, Moshi and Lindi. During 1951 construction was completed at Mikindani, Mtama and Mbeya but minor ancillary works are still outstanding at several depots.

Government Press, Dar es Salaam.—In order to cope with the very considerably increased activities of the Government Press Department, new Press accommodation was designed comprising a main office block and stationery store, and ten 80 ft. x 40 ft. sheds for the accommodation of the Press machinery, etc. The construction of the buildings, which are estimated to cost in the region of £35,000, has been in progress by contract during 1951 and is expected to be completed early in 1952 but, unfortunately, due to the delay in the arrival of electrical machinery and stores on indent from the United Kingdom, it is feared that this new accommodation will not be available for occupation until late in 1952.

New K.A.R. Barracks.—Planning for this project has continued during the year and construction is actually in progress on the provision of twenty-nine European Officers' quarters and ancillary buildings. Tenders are being invited for phase 1 of the African accommodation and work is expected to start early in 1952.

The preparation of detailed drawings for the further accommodation required is proceeding.

African Housing

The main effort was concentrated in Dar es Salaam. In the Temeke estate access roads, including a macadamzied highway now used by a bus service, and a piped water supply were installed; a contract, which was nearly completed by the end of the year, was placed for one hundred standard two and three-roomed houses in permanent materials for letting, and, to relieve the pressing shortage of dwellings, a large block of land was allocated to Africans in plots on which they would put up their own houses in traditional materials. At Magogoni, a residential area cut off from the town by the harbour and its creeks, access roads were put in and wells sunk. Further land for high density development was acquired at Magomeni, conveniently close to the centre of Dar es Salaam. In the establishment housing estate at Ilala three contractors agreed to erect a small number of experimental houses; on the cheapest and most successful design were based the plans for further large contract which was being prepared at the end of the year.

Outside Dar es Salaam the two main schemes were at Arusha and Mtwara. At Arusha one hundred standard two and three-roomed houses were begun under a contract, and at Mtwara the Public Works Department undertook to build fifty houses. Twenty houses were put up at Moshi and sixteen at Dodoma.

For the benefit of African Government officers who are required to live near their work, or are stationed in small settlements where no suitable accommodation is otherwise available, eighty-five Grade II, Junior Service quarters were built in various districts.

APPENDIX II

EXPENDITURE UNDER THE DEVELOPMENT BUDGET TO 31.12.51

Details of Expenditure	Actual Expenditure to 31.12.49	Actual Expenditure 1950	Actual Expenditure 1951	Total to 31.12.51	Estimate 1952
Section I.—Conservation and Development of Natural Resources	£	£	£	£	£
Agriculture and Animal Husbandry	562,761	359,117	396,324	1,318,202	686,634
Forestry	23,824	22,724	32,299	78,847	46,365
Development of Water Supplies	446,341	168,417	123,230	737,988	268,700
Soil Conservation ...	23,813	36,838	28,231	88,882	—
Survey	5,884	—	—	5,884	—
Geological Survey ...	16,262	17,980	38,268	72,510	33,494
Geological Survey (E.C.A.)	—	7,575	4,465	12,040	7,782
Mineral Development ...	19,107	13,582	9,123	41,812	13,950
Total Section I £	1,097,992	626,233	631,940	2,356,165	1,056,925
Section II.—Communications					
Roads	293,289	1,093,819	1,237,429	2,624,537	2,250,000
Improvements to Aerodromes	76,464	13,895	153,244	243,603	535,000
Telecommunications ...	243,315	—	—	243,315	—
Total Section II £	613,068	1,107,714	1,390,673	3,111,455	2,785,000
Section III.—Social Services					
Public Health	7,807	38,963	49,691	96,461	271,720
Education	440,094	291,965	108,683	840,742	201,100
Social Centres	25,776	1,502	5,351	32,629	40,000
Social Development ...	—	3,644	20,051	23,695	57,163
Total Section III £	473,677	336,074	183,776	993,527	569,983
Section IV.—Miscellaneous					
Township Development	143,938	449,714	511,727	1,105,379	689,400
Public Buildings and Works	612,784	905,772	1,100,886	2,619,442	1,450,000
Land Settlement ...	24,214	—	—	24,214	—
Subventions	28,521	—	—	28,521	—
Executive Organization	27,853	9,526	8,288	45,667	7,524
Land Acquisition ...	103,975	—	—	103,975	—
Miscellaneous Services ...	—	3,125	2,759	5,884	55,580
Total Section IV £	941,285	1,368,137	1,623,660	3,933,082	2,202,504
Total £	3,126,022	3,438,158	3,830,049	10,394,229	6,614,412